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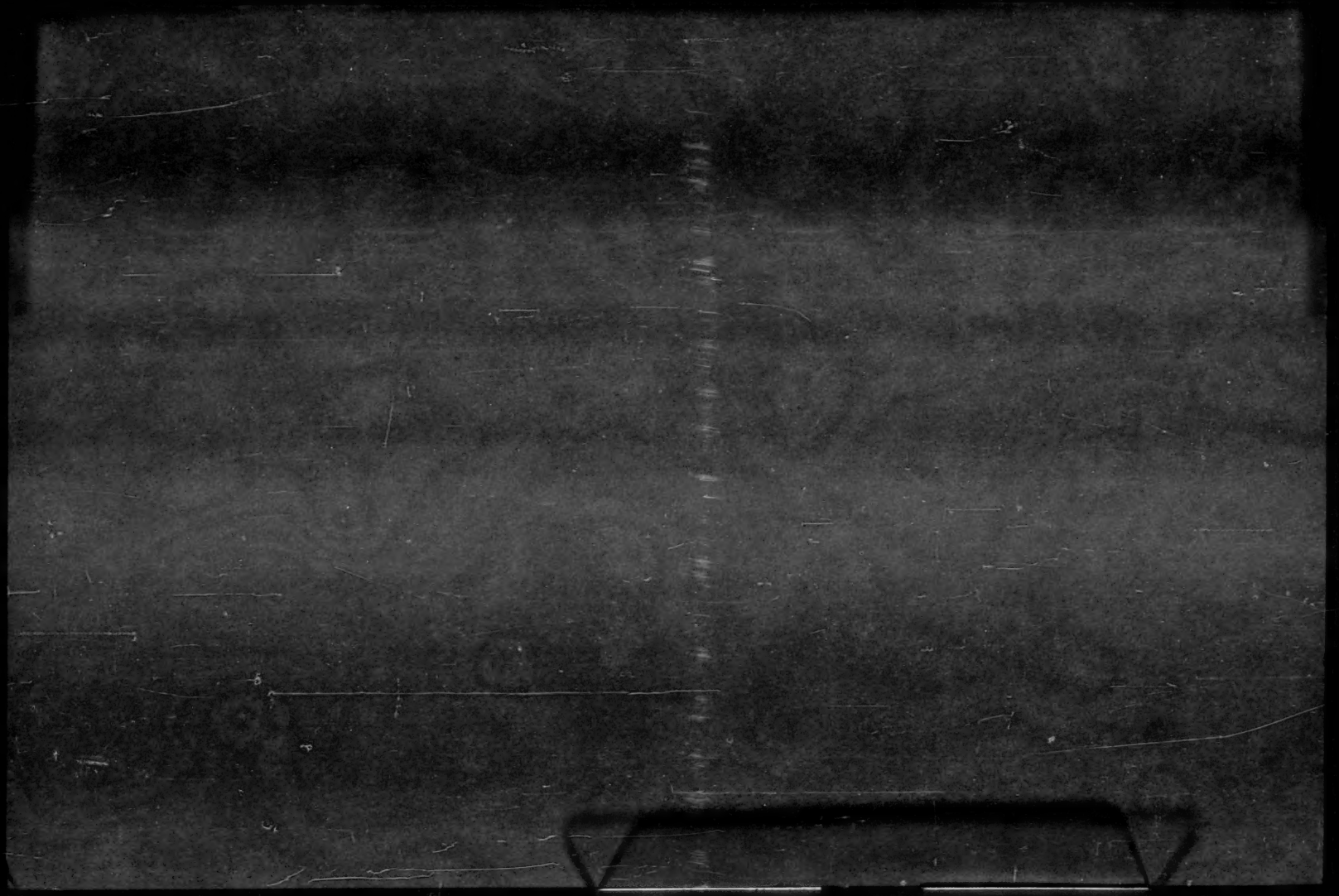

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TREATMENT OF THE PSYCHOSES*

BY HARRY C. SOLOMON, M. D.

It would be appropriate in this memorial lecture to give a review and analysis of the thoughts and writings of Dr. Richard H. Hutchings. The progressive and far-visioned views expressed by this important figure in psychiatry, in whose honor these lectures are given, provide adequate material for consideration. Indeed, this discourse, while not being devoted specifically to a discussion of his writings, will show that the developmental plans now in effect at the Boston Psychopathic Hospital follow in many respects the wisdom expressed by Dr. Hutchings. If the Boston program does reflect fairly closely many of his expressed ideas, it is not because his text has been followed blindly, but rather that in search and experimenting it has been found that his prescriptions are followed to a large extent. Undoubtedly his thinking has permeated psychiatry to an extent which makes this path seem obvious, and one falls rather naturally into it.

Although it is not the intention here to abstract Dr. Hutchings' writings, one cannot forego quoting some portions of his presidential address to the American Psychiatric Association, presented 11 years ago in 1939.

As to teaching, he said, "It should be regarded as one of the prime functions of the institutions . . . Every state hospital, even those located in rural districts remote from centers of learning could make this much contribution to the national welfare for the material is there and the personnel for instructors." One cannot help but remark how much more the state departments of agriculture and their subdivisions do in the way of instruction than do the mental health authorities.

Speaking further of our hospitals, he stated, "They are threatened by a redundancy of their own growth which in time will impair their standards and promises to bring them down to the level

*Second Hutchings Memorial Lecture, Syracuse, N. Y., October 2, 1950. (Richard H. Hutchings, M. D., who died October 28, 1947, was a past president of the American Psychiatric Association, and former superintendent of St. Lawrence and Utica [N. Y.] State Hospitals. He was professor emeritus of clinical psychiatry at the College of Medicine of Syracuse University and editor of this QUARTERLY at the time of his death. A series of annual lectures, sponsored by a memorial committee of former associates and friends, is being given at the Syracuse College of Medicine as a memorial to him.)

of almshouses." The present writer would add that when an institution attempts to care for 10,000 or more individuals it indeed has become a municipality rather than a hospital.

After mentioning that the states undertook the care of the mentally ill, Dr. Hutchings goes on to say, "So well did the states perform this service and so popular did the state hospitals become that with other factors operating, the task is becoming almost too great to be adequately dealt with under the present plan. There is a limit to numbers and congestion beyond which even a great humanitarian undertaking as a state hospital becomes unworkable." It would seem to the writer that this critical point has been reached or passed.

At another place the statement reads, "Progress in human affairs seems to advance in great circles. The plan or system that was discarded yesterday as outworn and useless is tomorrow revived and improved, and seems to be new and desirable."

Part of the present discussion will certainly concern itself with this cyclic change. How true today are the following words expressed in 1939, "It is difficult at this time to interpret the significance of newer methods of treatment of schizophrenia. What has been done is to be regarded as experimental. Consensus of opinion has not been even approximated. Its advocates seem to be unduly sanguine and there are some others who have not been impressed by the net results of treatment. This divergence of view is wholesome so long as it is not intolerant."

Then Dr. Hutchings stressed the importance of the conceptual thinking inherent in the psychobiological enunciations of Adolf Meyer and the psychoanalytic contributions of Freud. And he finished his address with this wise philosophy: "Nothing is wholly true. To say that something is true is to imply that it is static and, in psychiatry at least, sterile. The psychiatry of the future will be dynamic for it will be human; there will be of it much psychobiology, much that is derived from psychoanalysis; there will be of it much that is now unpredictable but it will not be static."

You will see then that Dr. Hutchings' views were extremely broad, involving preoccupation with teaching, investigation, the care of the patient, the development of proper institutions, relations with the public and interest in new therapeutic approaches. These functions, more or less, have been the preoccupation of the staff of the Boston Psychopathic Hospital.

This institution at its opening was directed to devoted itself to the broad field of instruction, not only to medical students and physicians, but to all the related ancillary disciplines and social sciences. A second instruction concerned investigation into the causes and treatment of mental disorder, and a third directed the institution to therapeutic considerations, especially of the acute and recoverable psychoses.

As background the writer would like to draw a short sketch of the hospital. It has a bed capacity for 110 patients. It serves the citizens of the Commonwealth of Massachusetts but more particularly those of the metropolitan area. It functions under the rules and regulations of the state hospital system. Under its present administration it attempts to carry out the instructions mentioned, in regard to teaching, research and treatment.

The present remarks, however, will be devoted more especially to the treatment problem. In so doing it is intended to stress an optimistic note regarding the therapeutic successes, especially with the acute psychoses. The following truths seem self-evident: (1) Most acute psychoses have a high recovery potential; (2) many acute psychotics if given reasonably-considered care will ameliorate or recover; (3) not infrequently recovery or amelioration is retarded if not prevented by poorly conceived methods of care; (4) specific therapeutic methods now available will increase the number of acute psychotics who will be able to carry on relatively satisfactorily in society.

The first point, that the acute psychotic has a considerable capacity for recovery, is readily documented by a brief survey of the results over many decades. Most patients with affective psychoses have traditionally shown a potentiality to recover for periods of time. In the schizophrenic group, recoveries have been by no means infrequent. Perhaps the figures of the Westchester Division of the New York Hospital, indicating a discharge rate of about 35 per cent, were representative of the period of several decades ago.

Our first problem therefore would appear to be to produce a type of general care which will afford the patient the best opportunity for recovery.

Bearing in mind Dr. Hutchings' statement that there are cycles which keep recurring in methods of care and treatment, it would be well to consider that cycle encompassed at the early period of de-

velopment of hospitals for the mentally ill in the United States. This is the period of about 1820 to 1860. Among the early established hospitals of this period the writer would mention especially three institutions in his own state, McLean Hospital, the Boston Lunatic Asylum and Worcester State Hospital. These institutions, in their early periods, were of small bed capacity. In each instance, they were headed by an inspired physician whose energies were devoted to the welfare of his small flock which he shepherded diligently and kindly and with an optimistic expectation of success. The treatment then in vogue was called "moral treatment." Attention was paid to every detail that would make for comfortable, serene living. Perhaps one can best remind you of the spirit of the hospitals by quoting Charles Dickens.*

"At South Boston, as it is called, in a situation excellently adapted for the purpose, several charitable institutions are clustered together. One of these is the State Hospital for the insane; admirably conducted on those enlightened principles of conciliation and kindness, which twenty years ago would have been worse than heretical, and which have been acted upon with so much success in our own pauper asylum at Hanwell. 'Evince a desire to show some confidence, and repose some trust, even in mad people,' —said the resident physician as we walked along the galleries, his patients flocking around us unrestrained. Of those who deny or doubt the wisdom of this maxim, after witnessing its effects, if there be such people still alive, I can only say that I hope I may never be summoned as a Juryman on a Commission of Lunacy whereof they are the subjects; for I should certainly find them out of their senses, on such evidence alone.

"Each ward in this institution is shaped like a long gallery or hall, with the dormitories of the patients opening from it on either hand. Here they work, read, play at skittles, and other games; and when the weather does not admit of their taking exercise out of doors, pass the day together. In one of these rooms, seated, calmly, and quite as a matter of course, among a throng of madwomen, black and white, were the physician's wife and another lady, with a couple of children. These ladies were graceful and handsome; and it was not difficult to perceive at a glance that even their presence there had a highly beneficial influence on the patients who were grouped about them.

*Dickens, Charles: American Notes. Pp. 50-53. Bernhard Tauchnitz. Leipzig. 1842.

"Every patient in this asylum sits down to dinner every day with a knife and fork; and in the midst of them sits the gentleman, whose manner of dealing with his charges, I have just described. At every meal, moral influence alone restrains the more violent among them from cutting the throats of the rest; but the effect of that influence is reduced to an absolute certainty, and is found, even as a means of restraint; to say nothing of it as a means of cure, a hundred times more efficacious than all the strait-waistcoats, fetters, and hand-cuffs, that ignorance, prejudice, and cruelty have manufactured since the creation of the world.

"In the labour department, every patient is as freely trusted with the tools of his trade as if he were a sane man. In the garden, and on the farm, they work with spades, rakes and hoes. For amusement, they walk, run, fish, paint, read, and ride out to take the air in carriages provided for the purpose. They have among themselves a sewing society to make clothes for the poor, which holds meetings, passes resolutions, never comes to fisticuffs or bowie-knives as sane assemblies have been known to do elsewhere; and conducts all its proceedings with the greatest decorum. The irritability, which would otherwise be expended on their own flesh, clothes, and furniture, is dissipated in these pursuits. They are cheerful, tranquil, and healthy.

"Once a week, they have a ball, in which the Doctor and his family, with all the nurses and attendants, take an active part. Dances and marches are performed alternately, to the enlivening strains of a piano; and now and then some gentleman or lady (whose proficiency has been previously ascertained) obliges the company with a song; nor does it ever degenerate, at a tender crisis, into a screech or howl; wherein, I must confess, I should have thought the danger lay. At an early hour they all meet together for these festive purposes; at eight o'clock refreshments are served; and at nine they separate.

"Immense politeness and good-breeding are observed throughout. They all take their tone from the Doctor; and he moves a very Chesterfield among the company. Like other assemblies, these entertainments afford a fruitful topic of conversation among the ladies for some days; and the gentlemen are so anxious to shine on these occasions, that they have been sometimes found 'practising their steps' in private, to cut a more distinguished figure in the dance.

"It is obvious that one great feature of this system is the inculcation and encouragement, even among such unhappy persons, of a decent self-respect. Something of the same spirit pervades all the Institutions at South Boston."

As will be gleaned, much thought was given to recreation, occupation, socialization and spiritual values. As evidence of the optimistic viewpoint, the recovery rates for acute psychoses as reported not only from these three hospitals but from other hospitals in the United States and England ran 75, 85, 90 and even 100 per cent. One may discount as much as one will the accuracy of these figures. Nonetheless they indicate, without doubt, the enthusiasm and expectancy of recovery on the part of the physician in charge, and one cannot doubt that whatever the discount factor the results were favorable for many of the patients. This happy state of affairs, unfortunately, did not continue. In the latter part of the century sour notes began to appear regarding the outcome. Spearheaded by the gloomy attitude of Pliny Earle, an increasing pessimism developed unabated until about 1930 when the pendulum again began to swing in the other direction. In fact, the recovery rate in 1930 reported by Worcester State Hospital had dropped to 4.5 per cent.

Many factors combined to produce both pessimism toward outcome and reduction in the recovery and improvement rates. Dr. Hutchings, in his presidential address, called attention to some of the factors. Among them may be mentioned insufficient facilities as a result of extreme overcrowding, niggardly budgetary support and an attitude of hopelessness on the part of the staff. Attention to cellular pathology, early biochemical methods and general somatic pathology contributed both to failure and to disillusionment.

The apparent decrease of recovery rates through the century is well illustrated by Table 1 which shows the reported recovery rates from the Worcester State Hospital. It should be noted that the recovery rates as here indicated apply to the entire institution population in contrast to the acute psychoses as mentioned just previously.

The writer would like to emphasize once more the optimistic reports of the recovery of patients with acute psychoses as made in the early part of the last century. A study of the so-called "moral treatment" in vogue at that time indicates that it consisted in large part of a devoted if not inspired care for the individual, special at-

Table 1. Worcester State Hospital Recovery Rates (1833-1932)

Years	Admissions	Percentage recovered
1833-42	1,519	46
1843-52	2,606	46
1853-62	2,544	45
1863-72	3,169	30
1873-82	3,128	21
1883-92	3,878	23.5
1893-1902	5,573	17
1903-12	6,131	15
1913-22	5,612	9
1923-32	4,711	4.5

tention being given to food, personal comfort, recreation, occupation and especially the dignity of the person. The details of care were the integral part of the "moral treatment" and were considered treatment in the true sense of this term.

The psychiatric attitude as thus expressed would seem to be in consonance with many of the psychobiological principles much later enunciated by Adolf Meyer. The general belief seems to have been that the impacts and stresses to which the individual was subjected in his earlier life were of etiological significance, and that relief from such pressures in a favorable environment could lead to the re-establishment of mental health. It does appear that much success came out of the efforts expended. It would seem therefore that we can well take a hint from this experience.

The writer's personal opinion, which he cannot repeat too forcefully, is that good general environmental care forms the base on which all other treatment should stand. To the writer's mind, there is a great analogy between the treatment of pulmonary tuberculosis and acute mental illness. In the case of pulmonary tuberculosis experience has established that good care, including nutrition, bed rest and relief from anxiety, is sufficient in many instances to allow the defense reactions of the body to arrest the tuberculous processes. With such care as the primary consideration, certain technical procedures may then be added, such as lung collapse or even lobectomy. Similarly, in the acute psychoses, proper general care leads in many cases to an adequate recovery. It is to the base of such general care that our more specific psychiatric therapies can be added. Therefore our attempts have been toward effecting the most salutary environment which it is possible to produce as the basis of all other treatment.

Attention to the production of a proper environment can be considered under two major headings: (1) attention to the physical environment; (2) attention to the psychological environment. To be sure there is in practice no clear separation between the two, but such a division may be helpful for exposition.

Bearing in mind that man cannot live by bread alone, it is still true that bread is essential, and so the physical needs must be considered. Few of us can flourish for any length of time in a dull, dreary environment. Pleasant surroundings, ample space in which to move around, adequate facilities for play and work, a proper diet well served are all important factors. The writer cannot go into detail concerning the need for wards and rooms well furnished, colorful walls, pictures, drapes and curtains, comfortable and attractive beds and chairs, cleanliness—in fact all things that add to the esthetics of living but that are of particular value to the sensitive person; and most of our mentally ill are quite sensitive indeed. Adequate facilities for recreation are likewise matters of great moment. Radio reception, phonograph equipment, piano and other musical instruments, television, games, opportunity for physical exercise, competitive sports, concerts, dances, picnics, musical appreciation classes, dancing classes, cooking classes, dramatic presentations, both spontaneous and more formal, are among the recreational possibilities. Occupational opportunities should fit the needs and abilities of the individual. Many craft possibilities are usually furnished by the occupational therapy department, but opportunities for other expression through the work field can add much. One refers to such things as library work, work in the chemical laboratory for the individual with some basic training, stenography—perhaps work in the x-ray department and the electroencephalographic laboratory should be available. As you see, the stress is on the need both for individualization of effort for the patients' needs and imagination on the part of the staff.

Perhaps more important is the psychological attitude to be attained. Harry Stack Sullivan's viewpoint that the psychoses represent a breakdown in the capacity for interpersonal relationships may well be borne in mind. Most mentally ill patients are sensitive, timid, fearful, anxious, and feel that they exist in a difficult or adverse world. To overcome these difficulties in adjustment of our patients should be one of our prime motivations. A friendly, sympathetic attitude affording security without maudlin sentimen-

tality is the aim. Coercion, both physical and moral, should be reduced to an absolute minimum. Authoritarian attitudes with too many rules, regulations and prohibitions lead only to resentment and hostility. The ideal to be striven for is an atmosphere in which the patient can have the maximum of liberty with the fewest possible restrictions, in a friendly environment where he can meet and associate with others. Freedom of expression and freedom of action within the limits of social acceptance is the philosophy of our American culture. An opportunity to exercise initiative, to associate with others and at the same time to have some rights of privacy are guaranteed to the free citizen under our Constitution and Bill of Rights. To the patient who feels that his rights have been abridged, every effort should be made to compensate for the required restrictions.

The attitudes and points of view mentioned have been inculcated to the best of our abilities in all Boston Psychopathic Hospital personnel who come into contact with patients. The writer believes these viewpoints are enthusiastically accepted by all staff members. They, too, appreciate becoming important members of a therapeutic team with an opportunity to use initiative, to contribute ideas which will benefit the patients and the ward society. Continuing discussions and reviews of problems met with by attendants, nurses, doctors, social workers, recreational workers, technicians, students and others are reflected in the attitude shown to the patients. By no means should the ideas and the desires of the patients be suppressed. There is need for opportunity for full expression both of criticisms and new ideas. In the present era, the most articulate expression along the lines indicated has come to us from the Chestnut Lodge group headed by Dr. Bullard and Dr. Fromm-Reichmann, and from the Menninger Clinic group.

The hospitalized mental patient almost inevitably has many of his rights as a free citizen abrogated. This is often unfortunate and it leads to dissatisfaction. It is an inherent responsibility, therefore, of the hospital to do as much as it can to return the sense of human dignity to the patient. One plan that is oriented in this direction is what is called in Boston "Patient Government." All patients are eligible whose social behavior makes it possible for them to meet together and become members of the organization which has its constitution and by-laws and its elected officers. The duties and responsibilities of Patient Government include regula-

tions of ward discipline, the determination of rest hours, allocation of ward work, inspection visits to the acute wards. The Patient Government has an active part in planning and executing recreational activities, and, finally, it offers suggestions and criticisms of existing conditions. These suggestions and criticisms, according to the approved by-laws, are to be presented in writing to the administration, and a responsive answer to requests for betterment or changes of procedure must be returned by the administration within one week.

Much time could be given to a discussion of the dynamics involved. The organization turns out to be, among other things, a form of group therapy. It offers opportunities for the patients to show leadership and initiative. Responsibility is taken on by those prepared to accept it. Group identification becomes overt and expressed. Self-expression and service to others flow out of the system. Under such an organization the hospital personnel become much less threatening figures. The group criticism by the patients helps to keep the personnel aware of the intrinsic rights of the individual. Constant attention to guard against the infringement of ordinary rights and decencies is required. The number of details that are important are almost infinite. Perhaps one example will suffice to make the point. It has been customary in most hospitals, certainly on the acute wards, to forbid the patients to carry matches. To many patients it is an extreme indignity to have to go to a nurse or an attendant every time a smoke is desired and say, "Please, please may I have a light?" One method of ameliorating this problem is to have electric cigarette lighters readily available for the patients' use. It is only when everyone is aware of and thinking about the things which irritate the patient, and the things which will give him some benefit, that a reasonably satisfactory hospital environment can be maintained.

The presence on the wards of students and volunteers can serve very good purpose. In the Boston Psychopathic Hospital, a galaxy of students made up of medical students, social work students, clinical psychology students, student nurses, clergy in training for pastoral and chaplain work, occupational therapy students, physiotherapy students, sociology students and student technicians is constantly coming and going. In combination with the services of the large corps of volunteers, the patient is subjected to the attentions of interested and sympathetic people whose interest and attention

are obviously not merely the earning of a livelihood. Many advantages accrue thereby to the patient—not the least is the fact that he receives attention and is not allowed to be too lonely. The presence of such people, who are somewhat "inspired," not only brings into the hospital the spirit of the outside world, but it has a definite salutary effect upon the paid staff.

As mentioned earlier, attention to these various problems of the environment may be considered as having a relationship to Dr. Meyer's psychobiological approach. It is on this base that more specific and definitive psychiatric therapies can produce the best results.

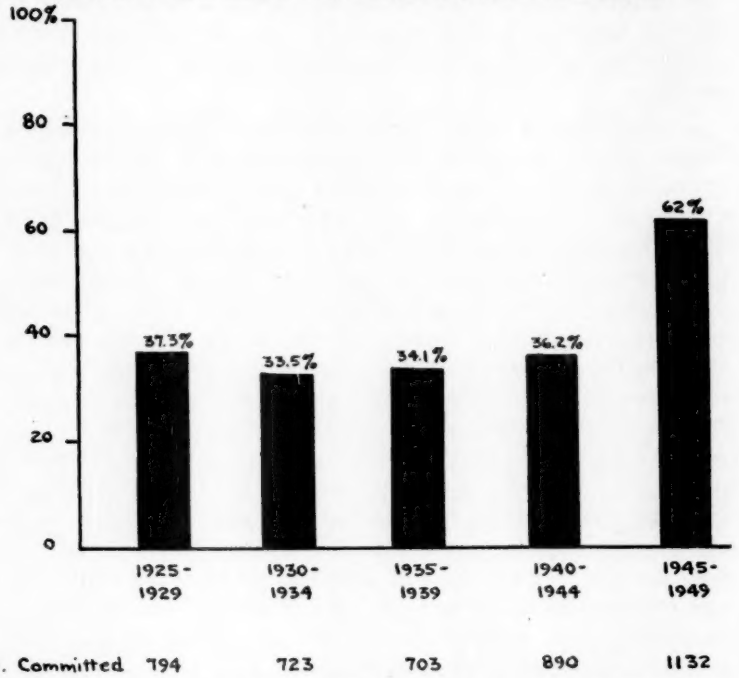
Dr. Hutchings referred to the entrance of the psychoanalytic influence on the treatment of psychotic patients. In the American scene, the psychobiological approach was the predecessor of a more analytically-oriented view. Little by little, however, the influence of the Freudian inspired psychology became so much a part of the psychiatric language and the psychiatric way of thinking that it is at this time difficult or impossible to separate the two. The difference lies perhaps in a greater scrutiny by the Freudian school of the meaning of each event and happening in the patient's life, cast in dynamic terms. Only in relatively recent years, has great enthusiasm been engendered for psychotherapy in the overt psychoses; and indeed the actual values of certain specific psychotherapeutic programs are still left unsolved as they were when Dr. Hutchings emphasized their potential values. However, at present no treatment program can be considered as adequate which does not pay a great deal of attention to the emotional conflicts and frustrations of the patient. More and more attention is paid to methodology. Perhaps John N. Rosen has done as much as anyone to stimulate an interest in the possibilities of psychotherapy in the overt and relatively long-standing psychoses. Any attention given to Dr. Rosen's work is in no small part the result of the sponsorship given him by Dr. Hutchings.

Coincident with the greater interest and more specific use of various types of psychotherapy is the introduction of at least two forms of somatic therapy, convulsive shock and insulin coma therapy. While opinion is not completely uniform, the consensus is that these methods have added a great deal to the alleviation of symptoms and, as is true in all therapeutic evaluations, it will prob-

ably be a long time before the actual possibilities can be properly demonstrated.

The accompanying figure (Figure 1) at least is significant of the change in outlook for the acutely ill patients at the present time as compared with earlier years. The writer would emphasize that the experience of the Boston Psychopathic Hospital in regard to im-

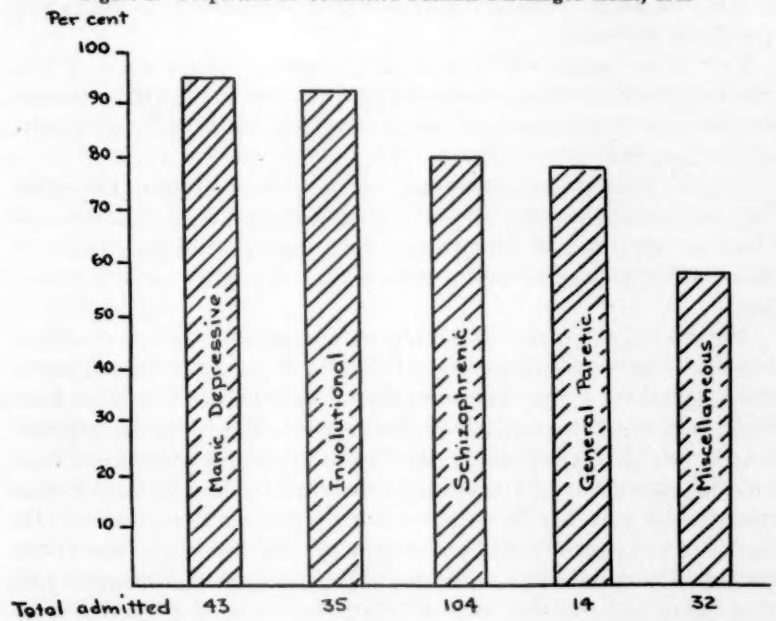
Figure 1. Boston Psychopathic Hospital, Proportion of Regularly Committed Admissions Discharged at End of Trial Visit by Five-year Periods from 1925 to 1949



provements and discharges is based upon a consideration of acute psychoses. The patient load of the hospital comes from the community in the form of patients who enter without commitment. In other words, it is made up very largely of relatively acute cases. Those who have sufficient disorder of behavior or sufficiently marked overt symptomatology to require commitment are committed after their admission to the hospital. The figures which will be discussed are limited to cases that have been committed after their admission to the hospital. One is struck by the fact that for a

period of 20 years, from 1920 to 1940, the discharge from visit rate as shown for each five years varied almost not at all; and, then, in the next five-year period, from 1945 to the end of 1949, there was a marked increase in discharges from visit. Discharge from visit means that the patient, after having been out in the community for approximately one year, is officially discharged from the hospital books and, if no adverse reports are received, is classified as recovered. It might be pointed out now that the 62 per cent of committed patients discharged from visit as recovered in the five-year period is made up of fewer cases for the years 1945-46 than for the later years. In other words the present rate would be more gratifying than the 62 per cent given for the five-year period. It behooves us in view of this change in result to review again the reasons for the improvement. Before doing so, however, the writer wishes to present a picture of the results of treatment as they have been obtained in the last several years at the Boston Psychopathic Hospital. (Figure 2.)

Figure 2. Proportion of Committed Patients Discharged Home, 1949



It would seem advisable to state again that the patient load is made up of acute cases, not necessarily first admissions but at least in most part patients who come directly from the community where they have been living for some time. It should also be borne in mind that these cases are all committed (meaning thereby that they show overt symptoms sufficient to allow the committing physicians and the court to consider them as needing hospital care because of psychoses).

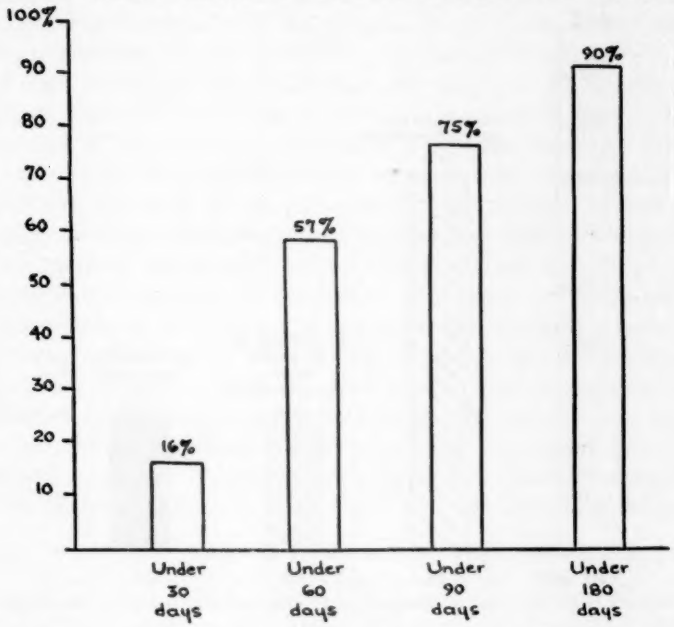
In the statistical year ending June 30, 1949, 80 per cent of the 228 cases committed to the Boston Psychopathic Hospital were discharged home. Figure 2 shows the results according to diagnosis. The most satisfactory results, as might be expected, were obtained in the patients diagnosed as having manic-depressive psychoses or involutional psychoses. Ninety-three per cent of the former and 91 per cent of the latter were discharged home respectively. Perhaps it is more interesting that 79 per cent of the patients diagnosed as schizophrenic were able to leave the hospital. The cases grouped under the category of miscellaneous include patients diagnosed as having infectious psychoses, metabolic disorders, organic disease of the nervous system and a few psychoneurotic cases with psychotic behavior.

Two other points are of some importance. These are how long the hospitalization was required and how well the patients were able to meet the stresses of community life without the protection of the hospital.

Figure 3 gives an accounting of the length of hospitalization, demonstrating that only 10 per cent of the patients remained longer than six months and that 16 per cent were discharged within 30 days. The average hospitalization for the entire group was 63 days.

Figure 4 deals with the ability of the patient to remain out of hospital. Seventy-one per cent of the total group remained out of the hospital for a year and were therefore officially dismissed from visit. Of the 29 per cent who returned to the hospital, approximately one-half, after short stays, were again discharged and were able to maintain good conditions at home. The remainder were transferred to other hospitals. It has been the experience in the past several years that about 40 per cent of those who are transferred to hospitals for more prolonged care are discharged. One may point out that the over-all discharge rate of 80 per cent in-

Figure 3. Duration of Hospitalization, 185 Committed Psychotic Patients, 1948

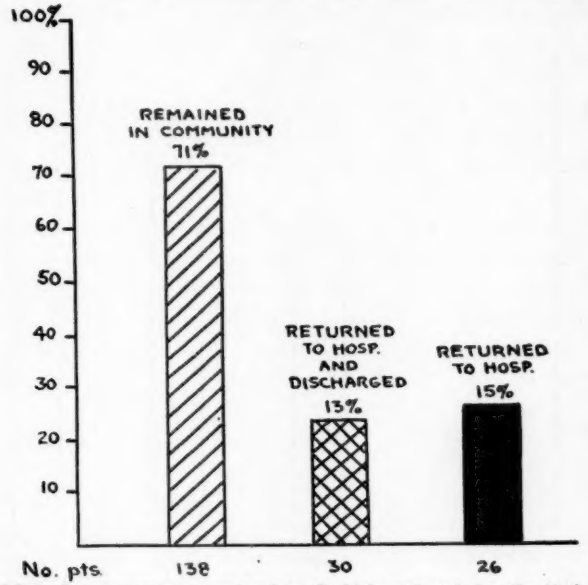


cludes the two groups designated as general paresis and miscellaneous which had a lesser percentage of discharges than did the group that are usually called the functional psychoses. An earlier study (Figure 5) made up of 56 committed patients, representing first admissions with psychoses of "psychogenic origin," showed a discharge rate of 92 per cent; and, at the end of two years, 77 per cent of the original 56 were still maintaining improvement in the community.

Attention has been called to the striking experience at Boston Psychopathic Hospital that there has been, in the last few years, a great increase in the percentage of committed patients who have been discharged. This experience is not unique—it has been reported from a number of institutions throughout the country.

Up to this point in the discussion nothing has been said about the role of the psychiatric social worker. Much of the effectiveness of treatment, the possibility of discharge and the patient's success in community living, depend upon the services that the psychiatric social worker contributes to the hospitalized patient in re-

Figure 4. Outcome of Trial Visit* in 194 Committed Patients, 1947



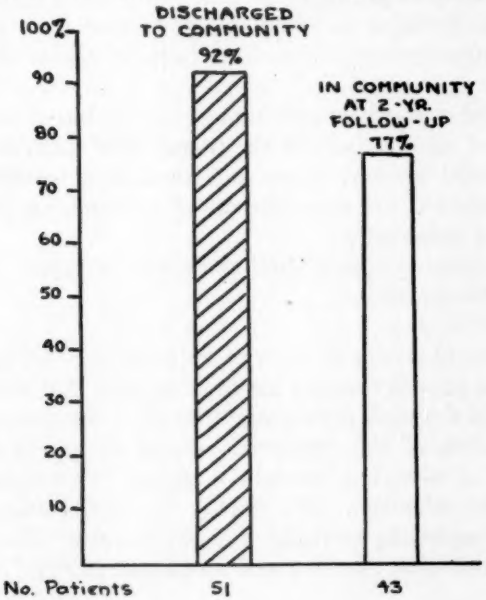
*Trial visit is for one year at termination of which patient is legally discharged.

lieving tensions and stresses arising from the problems in the outside world. Perhaps even more important is the effect of efforts directed toward the patient's family. Upon the changed attitudes of the family depends much of the success of social rehabilitation after discharge. In this institution a psychiatric social worker is stationed in the admitting office. In most instances this worker is in contact with both patient and family immediately upon admission, and in not a few instances the family is seen before the patient's arrival. The problems incident to the case, as viewed by the psychiatrically-trained social worker, are thus examined at a very early date, and procedures are instituted for care of the problems discovered. The methodologies and the effectiveness of this process merit more time and space than is presently available.

To one who has been in the field for over 30 years the changes in viewpoint and the attitude of enthusiasm and optimism as of today, in comparison with that of 30 years and more ago, form a striking picture. One is still left, however, with the depressing picture of thousands of chronically ill patients filling our hospitals. The in-

troduction of lobotomy has done much to improve the attitude toward these chronically-ill individuals. Experience with some 600 patients subjected to this procedure at Boston Psychopathic Hospital has been that approximately 40 per cent have been discharged. In a few cases, the final result has been strikingly good. One effect of this type of experience, which has been met with all over the world, is an awakening of hope for the recoverability of patients ill for many years. The results of surgery—looked upon by many as a non-physiological method and certainly a non-psychological method—have produced a challenge to get equally good results without resorting to the knife. The Boston experience has been a revealing one. Although a great many operations have been performed at Boston Psychopathic Hospital, the staff feels ill-disposed toward the method. The alternatives before them—of getting an improvement in the patient by other methods or having him become a candidate for surgery—are important stimuli to therapeutic effort. A general principle—not officially enunciated but which nonetheless is a guide—is that the patient admitted to the

Figure 5. Two-year Follow-up, as of December 30, 1949, of 56 Committed Patients with Psychoses of Psychogenic Origin, Admitted up to July 1, 1946



hospital is to have the best efforts at therapy. When and if after intensive efforts improvement does not occur the patient is transferred elsewhere for further care and treatment with the idea that if, at the end of two years or thereabouts there seems little expection of recovery, the patient is then due for reconsideration for surgery.

It has been pointed out that of the patients who fail to benefit sufficiently at the hospital to go home and are therefore transferred elsewhere, approximately 40 per cent are discharged from the second institution. From the remaining 60 per cent, a considerable number of patients have been returned for lobotomy; and of this group more than 50 per cent have made sufficient improvement to live once more in the community.

The final result would seem to indicate that, of the acute cases committed to this hospital, by the combination of the various treatment methods including surgery, close to 95 per cent can be returned home. At this point, it is premature to discuss the long-term prognosis. This indeed is a problem that confronts us and that must be worked upon in the future. The immediate results are, however, very satisfying to the personnel who deal with this group of acutely-ill patients.

Treatment includes so many methods that it is impossible to evaluate properly any one. The following are of therapeutic importance:

1. General over-all care including the hospital atmosphere, with the efforts of all members of the therapeutic team including psychiatrist, social worker, nurse and attendant, occupational therapist, recreational workers, laboratory technicians, psychologists, students and volunteers.
2. Psychotherapy, individual and group in type.
3. Somatic therapies.
4. Social therapy.

It is the combination, in the writer's opinion, with the proper selection of the proper therapy for each patient, that leads to the improvement in the high percentage that has been presented.

Consideration of the improved rate of discharge leads to the question as to what has brought it about. Two factors immediately come to attention. The first is the introduction of somatic treatments, especially convulsive shock therapy. The second factor, associated with the first and stemming partly from it, is the

more optimistic and hopeful attitude on the part of the staff. Earlier in this paper, the depressing decline in the percentage of patients discharged as recovered from Worcester State Hospital over 100 years was cited. Unquestionably, in the early part of this century, pessimism and gloom as to outcome cast a dark shadow over most of the personnel of most of the institutions caring for the mentally ill. This gloomy state can hardly be considered an optimal therapeutic condition. In the last 25 years this depressing attitude has been lifting. Interest in dynamic psychology acted as a yeast in stirring up enthusiasm. It would seem that the introduction of the shock therapies, because of the dramatic and rapid improvements that accompanied their use, led to increased optimism and greater efforts in therapy.

Finally, the writer would like to refer to Dr. Hutchings' warning about the dangers of the over-sized hospital. Certainly the superintendent of a hospital with 10,000 patients can hardly be the paternal figure described by Charles Dickens as caring for his small flock at the Boston Asylum.

In conclusion, may it be said that in the writer's opinion the contributions of psychobiology, psychoanalysis and somatic therapies have resulted in a change of attitude toward renewed enthusiasm and optimism that is most salutary. Our experiences of therapeutic efforts would seem to indicate that the enthusiasm and optimism are reasonably well founded.

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TRIBUTE TO DR. RICHARD H. HUTCHINGS*

BY EUGENE G. BEWKES, Ph.D.

There are many of us here who know something of the bare outlines of Dr. Hutchings' career—that he was an able administrator in the New York State hospital service; that he served with distinction at Ogdensburg prior to his superintendency at Utica, where he served with increasing distinction; and we all know that he was president of the American Psychiatric Association; that he was editor of THE PSYCHIATRIC QUARTERLY; that his *Psychiatric Word Book* is famous. In short, many of us know the biographical data which anyone can read in *Who's Who.*

Occasions like tonight and lectureships such as the one memorializing Dr. Hutchings' name are not solely explainable on the basis of an impressive professional record. That record in itself is far richer than any biographical catalogue. I should like to make some brief reference to that professional achievement before turning to the privileged pleasure which is mine this evening of making what I shall describe as a personal introduction of Dr. Hutchings to the younger men and students who may not have known him well or at all.

Any astute observer or prophet would have recognized at the very outset of Dr. Hutchings' hospital administration that here was a man who would walk no routine medical treadmill, but who would search and seek beyond the known answers. A nice example of this is his own determination in 1903 at Ogdensburg to find out whether typhoid bacilli could be transmitted in ice. He proceeded to isolate the bacillus in the laboratory and made a necessary and valuable scientific contribution. This was his characteristic approach to find better answers. We have the same evidence of scientific forward-looking and open-mindedness in his attitude toward Freud's work. At a time when among so many medical people it was fashionable either to ridicule that work or to have little interest in it, Dr. Hutchings was determined to take an open-minded look at it. He recognized the new insight of Freud, and realized it might have a tremendous effect in psychiatry. Dr. A. A. Brill fre-

*Personal tribute delivered on the occasion of the second annual lecture in memory of Dr. Hutchings (given by Dr. Harry C. Solomon, pp. 1 to 19, this QUARTERLY), October 2, 1950 in Syracuse, N. Y.

quently testified to the contribution of Dr. Hutchings as one who very early encouraged the study and application of Freud's work.

There is a significant point here that I should like to make. It is not that Dr. Hutchings took on something new, lock, stock and barrel, because it was new or novel, but rather that his own searching, probing, question-asking mind saw at once that Freud had something of great import. You recall how Freud as a young man had visited the Nancy school. You remember how one patient, having been constantly pressed to give the right answer or reason for closing a window following a hypnotic suggestion, finally said in anger, "You told me to close it." You remember that this acted like a catalytic agent in Freud's mind. He was sure now that there was a road from the conscious to the unconscious. Whatever else remains, there are two things at the heart of Freud's work: first, the new certainty regarding the bearing of unconscious factors in behavior; and second, that a liberating road may be laid between the conscious and the unconscious. This insight is one of the great discoveries of the modern age, and in my judgment it ranks with the discoveries of Darwin in biology and of Einstein in physics.

The significant point I wanted to make about Dr. Hutchings, and which does differentiate him from the rank and file in the profession, is that his own mind was prepared to appreciate that the something new was not just another notion, but an insight which might be revolutionary in character.

It is not surprising therefore, when we consider these evidences which indicate the more than ordinary level of professional ability, that his scientific and professional spirit infused not only his own hospital staffs, but the entire state service. I have gained the impression from my acquaintance with some of the medical people in the state that to Dr. Hutchings is attributable much of the reason for the distinguished position of our state hospital service in the United States. So, when I read the long list of improvements in the state hospital service across the years which are assigned to Dr. Hutchings by Dr. Hamilton in his article in THE PSYCHIATRIC QUARTERLY,* I am not surprised. These results are corollaries of a professional and scientific devotion of mind that inspires everybody associated with it.

Now none of these things did I know when I first met Dr. Hutchings. I was a young man just over 30 when I became acquainted

*PSYCHIAT. QUART., 13:4, 750-752, October 1939.

with him. I had just begun college teaching. My attention was attracted to him in a professional group which gathered every month for dinner and discussion of scientific, economic, philosophical and general problems. I early recognized in him a quality of mind that was above the average, and ere long I came to appreciate that quality as something more than intellectual stature. I sensed that over and above his erudition, which was unusual, and his professional competence, which was widely acknowledged, there was much else. It is not always easy to find descriptive words which will make articulate our intuitions about people and things. But I think what I felt could be indicated by such words as, "understanding," "tolerance," "wisdom." I was drawn to this much older man and wanted to know him better. It was a sound instinct so far as I was concerned.

Dr. Hutchings showed great interest in a subject that was engaging my attention at the time, the relation between ethics, religion and psychology. My conversations with him deepened my understanding and enriched my teaching. Now it so happened that I was one of those persons on our faculty who, for some reason, attract the problem cases of students. Perhaps they sensed in me a kindred spirit, for, though the students never knew it, most of my elementary and high school years were punctuated by letters home and dismissals for, shall we say, misdirected energy. At any rate, as a college teacher, my faculty colleagues referred the tough problems my way. But I knew that some of these problems of students had roots that went below and beyond my reach as a counselor. It was in connection with these cases that Dr. Hutchings made a great contribution which I do not believe has been previously referred to. For a number of years, both while I was dean at Colgate and later chairman of one of its schools, I would from time to time send students to Dr. Hutchings. This went on while Dr. Hutchings was head of the Utica hospital. We all know how filled with duties was his professional life, and yet he never once failed to take the time to add this student burden to his load. How wonderfully successful he was in solving these cases! He had an uncanny discernment of where the trouble lay and what to do about it.

It is easy to understand that from these contacts a relation of friendship developed between Dr. Hutchings and me. A time came when matters of great import to me personally required his counsel. It was then that I came to appreciate more than ever the

breadth and depth of his knowledge and wisdom. He shared with me much of his general thinking on problems of youth, education, philosophy and religion. We discussed the subject matter of many books. Some of these he asked me to review for THE PSYCHIATRIC QUARTERLY. Among the friendships which I have had with teachers and others in the generation ahead of mine, I think I cherish most my relation to Dr. Hutchings. I was often touched by his warm personal interest. He would say to me every once in a while, "I would like to see you have a college presidency." I had some misgivings about this, but his confidence in me was deeply gratifying. After I had accepted the presidency of St. Lawrence, I learned that Dr. Hutchings had had a hand in it. He insisted on taking the long auto trip from Utica to attend the inauguration ceremony.

I must not, of course, burden you with too many details of our personal friendship, but here is a man that I knew, not out of a book, but in the life. I was in a quite different professional field, but he was a constant inspiration to me. His intellectual vigor continued unabated; he worked hard and made life yield up its best fruits; he saw the humor as well as the tragedy of life; he saw much of human frailty, but he had profound faith in the dignity of human personality. It was his belief that if education can keep the roads open to truth, mankind will outrun much of the bias, the prejudice, the superstition that so heavily weighs man down.

I want to congratulate Syracuse University Medical School for its hospitality to a lectureship named in honor of Dr. Hutchings. He deserves to be memorialized as well as emulated, for he was all that a great doctor should be.

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IMPOTENCE DURING ELECTRIC SHOCK THERAPY*

BY S. T. MICHAEL, M. D.

Disturbances of sex functions in women during electric convulsive therapy are well known to those who use shock therapy to any extent. Kalinowsky and Hoch[1] report menstrual disturbances in their monograph on shock therapy. However, no mention is made of sex disturbance in the human male.

The sex function of a male who is restricted within the confines of an institution does not herald itself by monthly manifestations as is the case in the female. Sex function in the male is best gauged by ability and frequency of performance of satisfactory sex relations. Quantitative estimation of male sex function cannot be obtained if the usual form of expression of sex function is restricted, or is limited by enforced separation from the sexual objective, as is the case in hospitalized patients. If meaningful studies of male sex function are to be carried out in the setting of electric shock therapy, the patient should be married, living sexually with his wife, and treated on an ambulatory basis.

The following observations were obtained from a group of 11 male patients treated on an ambulatory basis. Nine were married and two were bachelors.

Case Notes

Case 1. The patient, aged 29, a skilled carpenter and the father of two children, had a course of 15 electric convulsive treatments for a well-developed, paranoid schizophrenia. One week after the last treatment, the patient, sheepishly and with some misgiving, complained that he was unable to perform his sexual function because of failure of erection. His wife, who was present at the interview, was prompt in assuring him profusely that she did not mind. She asserted that the period of enforced celibacy was to her a welcome vacation from his nightly attentions. Three weeks following the last treatment the patient smilingly revealed that his potency had "returned," even though not quite sufficiently for satisfactory performance of the desired function. Six weeks after

*Read at the downstate interhospital conference of the New York State Department of Mental Hygiene at the New York State Psychiatric Institute, April 11 and 12, 1950.

the last treatment the patient stated that his sexual function was approximately as satisfactory as preceding the course of shock treatment.

Case 2. An unskilled worker, aged 32, complained of dizziness and tension in the nuchal region. He described this as a "drawing" feeling. This condition was treated for five years by general practitioners who gave the patient various sedatives and supportive psychotherapy. He also had one year of psychotherapy by a psychiatrist, all to no avail. He had sexual relations every night, occasionally twice a night. He was the father of three children. Following eight electric shock treatments, his intellect was profoundly impaired, with extreme memory loss and an extreme degree of inability to verbalize. He could not recall the nature of his symptoms and was completely free of them during the first two weeks following the last treatment. During this time he was also completely impotent, a fact which was accepted by this patient's wife also with great relief. His potency began to return during the third week following the last treatment, at which time his symptoms also vaguely reappeared. Six weeks after the treatment, his potency was back to its previous level as were also his complaints of dizziness and of a "drawing" sensation in the back of his neck.

Case 3. A corporation executive of 62, a father of two sons, made a suicidal attempt with drugs following financial reverses which threatened the security of his future. His depression lifted after four electric convulsive treatments. Approximately four weeks following the last treatment, his younger wife reported that her husband had been impotent since the shock treatments. His potency began to return approximately six weeks after the termination of shock treatment and was back at its normal level approximately 10 weeks after the end of the treatment.

Case 4. A railroad worker, aged 44, a father of four children had a third recurrence of depression, associated with marked paranoid delusions and decrease in sex desire. He had a course of eight electric convulsive treatments, his third course for the same condition. The brief stimulus technic of Liberson was used in this case. On inquiry two weeks after the last treatment, the patient admitted to sexual impotence. This patient, a deeply religious individual, was reluctant to give details. When seen three weeks after the last treatment he nodded in the affirmative to a question

as to the return of his potency, although evidently he was not yet satisfied. Four weeks after the last treatment, this affirmative nodding was more vigorous but still with some reservation as to the completeness of his recovery. Seven weeks after treatment, he confirmed the fact that his sex potency was as good as before his illness. His mental symptoms did not recur and he considered himself completely recovered from his mental condition.

* * *

Two of the remaining seven patients had depressions with suicidal ideas and were impotent prior to the treatment. One man of 40, who was virtually impotent because of a childhood injury to the testes and who had had intercourse at intervals of two to four months before shock therapy, remained impotent after shock treatment for an observation period of eight months. The state of the other originally impotent patient, aged 55, could not be ascertained, as he left for unidentified regions early following completion of therapy. One other, a bachelor, aged 42, denied having any interest in the opposite sex and consistently evaded the topic of sex discussion. No inquiry was made into the post-shock sex status of the remaining four patients, nevertheless they are included in the series, since they too had the same opportunity to express their concern over possible impotence but did not do so.

Comments

The cases of impotence following electric shock therapy reported in the foregoing tend to indicate that temporary impotence in the male following electric convulsive therapy is not a rare occurrence.

The pattern of impotence in the four patients described seems to be fairly uniform. There is complete failure of erection during the first two weeks following the last treatment. Feeble erections return during the third week. Gradual resumption of sexual function follows the fourth week in the young and vigorous men. The longer interval of six weeks of impotence in one patient, occurring even after the small number of four shock treatments, might possibly be attributed to the greater age of the individual.

Speculation about factors involved in the impotence resulting from electric shock treatment suggests several possible explanations. It is, for instance, well known that electric shock treatment interferes with the periodic menstrual function in women.[1] Elec-

tric shock also interferes with gestation and maternal behavior in rats.[2, 3] It may be, therefore, hypothecated that the impotence observed in the human male is due to a depression of endocrine function. The mechanism of the disturbance of hormone function is not clear, nevertheless a number of suggestive facts are available. Several observers demonstrated that adrenocortical function is increased following a course of electric convulsive therapy. Thus there may be an increase in ketosteroid excretion.[4, 5] Also, changes in the level of blood lymphocytes indicate stimulation of the adrenal cortex by electric convulsive therapy.[6, 7, 8, 9, 10] It may be, therefore, assumed that, following a course of electric shock treatment, there is increased function of the adrenal cortex.

Increased function of the adrenal cortex, as observed in Cushing's syndrome, usually leads to menstrual disturbances in the female and to impotence in the male. Menstrual disturbances and decreased potency have also been observed during the recent experimental therapies with adrenocorticotrophic hormone. The temporary impotence occurring after electric convulsive therapy might be ascribed thus to temporarily increased adrenocortical function.

There are several defects in this endocrine interpretation. Even though an increase in adrenocortical function seems documented by laboratory evidence, it does not reach clinically the proportions of Cushing's syndrome. True, there is a slight initial gain in weight which was, for instance, recorded by Altschule and Tillotson,[11] and ascribed to ketosteroid function; but this clinical manifestation is slight, the increase in weight being relatively small. The weight increase which occurs later, two or three months after the completion of shock treatment, may also be due to endocrine change, but it does not coincide temporally with the impotence observed immediately following shock treatment. In essence, there is no clinical evidence of sufficiently increased adrenocortical function to account for the impotence.

A course of shock treatment is a repeated stress of only moderate severity which, however, from evidence of at least five reports on leukocyte responses, does maximally stimulate the adrenal cortex. Nevertheless, the shock stresses are certainly not so intense as other more physiological stresses, such as the repeated stress of athletic training and performance, or perhaps the stress of military drill. Athletic stress is known to cause leukocytic responses

similar to that of electric shock.[7] Yet there is no evidence that athletes in training or soldiers under military stress become impotent.*

The possibility of suppression of pituitary gonadotropic function must also be considered on the basis of Rosvold's experiments on rats[2, 3] and on direct observation of the development of amenorrhea and diabetes insipidus in man.[12] However, since even complete castration does not necessarily lead to impotence, the gonadotropic deficiency might be accorded, at best, only ancillary significance.

It is commonly claimed, but not always proved, that electric convulsive therapy leads to destruction of, or damage to, brain tissue. The alleged damage to the cellular structure of the brain is based, not on anatomical findings which are controversial, but rather on deterioration of function following shock therapy. The memory loss, the lack of initiative, the decreased verbal productivity and altered neurological signs all point to some interference with function of the nervous tissues.

Observations are recorded in the literature indicating that brain injury may lead to impotence. Thus 30 of Stier's[13] 33 cases of brain contusion claimed decrease in sex function. Fleck[14] recorded complaints of impairment of sexual function in six of 30 cases of brain concussion. Rojas[15] found complete and irreparable loss of erection after fracture of the base of the skull followed by unconsciousness lasting over 48 hours. He assumed that the fracture caused injury to the hypothalamic region, an assumption which was supported by the finding of other symptoms attributable to disturbance of the viscero-autonomic system such as hot flashes, cold extremities, bursts of perspiration and inability to retain urine as efficiently as previously.

Explanation, on the basis of brain damage, of impotence following electric shock therapy seems quite feasible for yet another reason. The impotence as observed in the ECT patients was most profound shortly after the shock treatment at a time when it is customary to observe the usual evidence of impaired brain function such as memory loss, decreased verbal productivity, lack of initiative, etc. As the brain function improved, so also did sexual

*Since the setting of this article in type, a note has been found (J. A. M. A., 143: 408, 1950) referring to "azoospermia in infantrymen after tours of front line duty" and to temporary sterility in athletes and teachers.

potency return; and, in fact, in Case 2 described here, the return of sexual potency paralleled quantitatively the return of the patient's clinical psychiatric symptoms.

There are, however, several factors which are not consistent with an interpretation of the impotence on the basis of brain damage. It is known that bilateral removal of the frontal, temporal, parietal or occipital lobes, or even removal of a hemisphere, in cats does not interfere with sexual function, unless the lesions so extensively involve the motor areas that the animal is unable to execute the movements for successful copulation.[16]

No impotence has been observed or reported after partial ablation of the cortex in the frontal lobe regions in man; and, in fact, increase in sex activity occurred after bilateral temporal topectomy in primates and after frontal leukotomy in cats.[16] A case is on record in which frontal leukotomy resulted in recovery from impotence of several years duration.[17]

The development of impotence after brain injury may depend on the localization and distribution of the injury. It is possible that diffuse injury, such as occurs in brain concussion or ECT, may lead to impotence, while the complete but localized injury of lobectomy or lobotomy does not.

Sex function is a complex activity which, in mammalian species, depends on the co-ordination of a number of biological drives, reflex mechanisms, and hormonal integrations that are to some extent conditioned by environmental circumstances. Conditioned and environmental mechanisms achieve prominent significance in man and may frequently, of their own weight, lead to enhancement or inhibition of sex activity. Since electric shocks may lead to disintegration of conditioned reflex activity and to impaired capacity for complex adaptations,[18] it is possible that similar disintegration of function may contribute to the impotence observed.

The true cause of the impotence seen here may not rest on either damage to the brain substance or to the endocrinological changes as sole factors, but rather on a combination of factors of which the foregoing are only fractional participants. The answer to this problem must be sought in more pertinent laboratory and clinical data. These data may contribute not only to the knowledge of the etiology of impotence as a primary phenomenon but also to the heretofore unknown mechanisms of shock therapy.

Summary

Sexual impotence developed following electric shock therapy in four previously virile male patients.

Satisfactory recovery from the impotence occurred within six to 10 weeks following the last treatment.

Possible interpretations are discussed which relate the impotence to cerebral injury, to change in endocrine functions, or to a combination of these factors.

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THE USE OF BCG IN MENTAL INSTITUTIONS

BY H. C. STEWART, M. D., JULIUS KATZ, M. D., AND H. B. LANG, M. B.

Although BCG vaccine (prepared with the Bacillus of Calmette and Guérin) has been in use for many years in some parts of the world, particularly in Europe and South America, it has received little attention in this country, until the past few years. The reason for this lack of interest has been that few reports of its effectiveness in protecting against tuberculosis have been based upon adequately controlled studies. The safety of the vaccine has been well established through millions of vaccinations with no untoward results.[1] Careful studies reported recently by Aronson[2] and Rosenthal[3] in this country, and by Ferguson[4] in Canada have indicated that the vaccine may be of definite value in the prevention of tuberculosis, and have aroused considerable interest in its use.

Among those who have shown the most interest have been those concerned with the administration of institutions for patients with mental disease. This has been evidenced by inquiries concerning the use of BCG vaccine received by the New York State Department of Health. This interest is caused by the fact that tuberculosis is a problem of great importance among patients and employees of such institutions. In New York, for example, a prevalence rate of 5.1 per cent of clinically significant pulmonary tuberculosis was found among patients in state mental institutions[5] as compared with an estimated rate of 0.3 per cent among the general population. The death rate from this disease is also much higher among the institutional inmates.

When the BCG program of the New York State Department of Health was begun in 1947, it was, therefore, almost inevitable that patients in mental institutions be included among the groups to be studied. In this group information was to be obtained as to the proportion present of non-reactors to tuberculin. These non-reactors were considered to be eligible for BCG vaccination. No very extensive information was available as to the proportion of non-reactors present in institutional groups of this kind. Indeed, no adequate information was available as to proportions of non-reactors in any population groups which included considerable numbers of individuals in the older age brackets, with the exception of groups which had been tuberculin tested in some specific

activities, such as the examination of household or family contacts of tuberculosis cases.

BCG vaccine contains living, but relatively non-virulent, tubercle bacilli of the bovine type. Introduction of these organisms into the unsensitized human body results, in a high proportion of instances, in the changing of the tuberculin status from negative to positive. The work of Aronson, Rosenthal, and Ferguson, mentioned already, indicates that, accompanying this change in tuberculin status, there is some increase in resistance to tuberculosis. This increased resistance is relative, and will not protect *all* individuals, or protect under *all* conditions of exposure. The duration of whatever resistance is produced has not been definitely ascertained.

It is well known that infection with a pathogenic type of the tubercle bacillus produces, after an interval, an increase in resistance to subsequent tuberculous infection. It is, unfortunately, also true that infection with virulent tubercle bacilli may progress to clinical tuberculosis. If, instead of strongly virulent infection capable of progression, a weakly virulent infection could be substituted, one which would always regress before it reached harmful proportions, acquired resistance could be obtained without danger. It is becoming increasingly apparent that such a relatively non-virulent infection may quite safely be given by using BCG vaccine as the infecting agent. BCG vaccine is limited in its usefulness. It has no place in the treatment of tuberculosis. It is not thought to be of benefit to the already-infected individual, as whatever powers of developing resistance exist have already been stimulated to action. No further stimulation of these powers could be expected by adding an infection by BCG.

The reaction resulting from BCG vaccination is, to a great extent, dependent on the method used in vaccination. Because of the almost total absence of untoward reactions reported following the multiple puncture method of vaccination, it was decided that this method should be used in the Department of Mental Hygiene institution population groups. The reaction following vaccination by this method is local and is not accompanied by enlargement or suppuration of the regional lymph nodes. Within a short time after vaccination the skin regains its normal appearance. Within 10 to 20 days, the local puncture marks reappear as inflamed and infiltrated papules or elevations, 2 to 3 mm. wide. These lesions

cause no general symptoms. Very rarely, do they become enlarged. The reactions disappear in a few weeks; and from two to three months after vaccination, the process is completely resorbed without leaving residual marks or scars.

To gain information as to the proportion of tuberculin nonreactors in institutions of the New York State Department of Mental Hygiene, a program of tuberculin testing of patients and employees in selected institutions was carried out. It was begun at Hudson River State Hospital. The tuberculin test material used was tuberculin purified protein derivative (PPD). The standard first strength test dose (0.00002 mg.) was used on all individuals tested. Those who did not react to this dose were re-tested with the second strength dose PPD (0.005 mg.). Readings of tests were made after 48 to 72 hours. Absence of induration, or induration of less than 5 mm. diameter, was read as negative.

The patients and employees of Hudson River State Hospital are drawn from an essentially urban population, in which the proportion of tuberculin reactions may be expected to be relatively high. To determine any effect of residence in rural areas upon the proportion of tuberculin reactors among mental hospital patients and employees a similar program was carried out at St. Lawrence State Hospital which admits patients from a district having more marked rural characteristics than does the Hudson River State Hospital district.

Since the proportion of tuberculin reactors increases with age, and the mental hospital patient populations are predominantly in the older age groups, a similar program was carried out at Letchworth Village, a school for mental defectives, where the average age is much lower. Even though the prevalence of clinically-significant tuberculosis is considerably lower among these inmates than among patients in hospitals for psychotic patients, the prevalence rate is higher in the schools for the mental defectives than in the general population, so that additional protective measures against tuberculosis should be considered.

Some of the details of the results of tuberculin tests are shown on the accompanying table.

Practically the entire patient population in the three institutions received tuberculin tests, 11,095 patients in all. A total of 10,981 patients were considered to have completed the recommended test

doses, and 9,162 (83.4 per cent) were found to be reactors to 0.005 mg. PPD or less.

Results of PPD Tuberculin Tests in Selected New York State Institutions; First Test Dose 0.00002 mg.; Second Test Dose 0.005 mg.; Per Cent Found Positive—1948

	Total tested			Per cent positive				
Age group	H.R.*	St.L.*	L.V.*	H.R.	St.L.	H.R. and St. L.	L.V.	H.R., St.L. and L.V.
				Patients				
All ages	4,750	1,982	4,249	97.0	92.8	95.8	63.9	83.4
0-14	....	....	967	....	....	....	24.9	24.9
15-24	110	30	1,302	70.9	46.7	65.7	55.5	56.5
25-34	415	108	865	91.6	66.7	84.6	80.8	82.9
35-44	752	240	694	97.5	91.2	96.0	95.0	95.6
45-54	975	364	295	98.8	95.9	98.0	96.9	97.8
55-64	1,049	455	84	98.9	96.7	98.2	92.9	97.9
65+	1,438	758	21	97.7	95.0	96.8	95.2	96.8
Not stated	11	27	21	100.0	92.6	94.7	47.6	78.0
				Employees				
All ages	923	488	....	93.7	83.4	90.1	....	....
0-14	....	....	....	....	....	....	....	....
15-24	122	78	....	75.4	47.4	64.5	....	....
25-34	194	107	....	89.2	77.6	85.0	....	....
35-44	284	120	....	98.9	94.2	97.5	....	....
45-54	185	112	....	98.9	96.4	98.0	....	....
55-64	108	29	....	98.1	100.0	98.5	....	....
65+	28	7	....	100.0	100.0	100.0	....	....
Not stated	2	35	....	100.0	85.7	86.5	....	....

*H.R.—Hudson River State Hospital; St.L.—St. Lawrence State Hospital: state hospitals for mental patients. L.V.—Letchworth Village: state school for mental defectives.

No significant differences in the proportions of patients reacting were noted when division of the material was made according to sex. The proportion of non-whites in the total patient group was considered too small to warrant division of the data into white and non-white groups. When account was taken of the age groupings, a considerable variation in the proportions reacting was noted. In the youngest age group considered, 0-14 years, 25 per cent reacted. There was a rapid and steady increase in successively older 10-year age groups, until 96 per cent were found to be reactors in the 35-44-year group. At ages older than this, the proportion of reactors was found to approximate 98 per cent.

In the two state hospitals more than 90 per cent of the employees had tuberculin tests, a total of 1,527 employees. Of 1,411 employees completing the recommended tests, 1,272 (90.1 per cent) were found to be reactors to 0.005 mg. PPD or less. In the 15-24-year age group, 64 per cent of the employees reacted, in the 25-34-year group 85 per cent reacted and in the older groups the proportion of reactors ranged from 97 per cent upward.

At St. Lawrence State Hospital the proportion of tuberculin reactors was only slightly less than at Hudson River. This was true for both patient and employee groups.

Of the total patients in the two hospitals the proportion of reactors was found to be 95.8 per cent. The results of these tests, though not unexpected, considering the age distribution of the patient population, eliminated for all practical purposes the extensive use of BCG vaccination among patients in mental hospital groups. Less than 5 per cent of such patients were found to be non-reactors to tuberculin and therefore eligible for vaccination. Among employees in the two state hospitals only about 10 per cent were considered eligible for vaccination.

At Letchworth Village, 36.1 per cent of the patient population were found to be eligible for vaccination. The higher proportion of non-reactors in this institution was to be expected. The percentage of tuberculin reactors increases with age, and in the schools for the mental defectives the proportions of the population in older age groups are much less than in the mental hospitals.

Nearly all of the patients and employees in the three institutions who were found to be non-reactors to tuberculin received BCG vaccine. It is planned to make observations of these vaccinated individuals over a period, to determine the proportions becoming tuberculin positive following vaccination and to note over what period such tuberculin allergy persists.

The tuberculin status of patients and employees at the time of admission or at beginning of employment is not known at present, but information is currently being collected.

There is one group of employees whose tuberculin status deserves particular consideration at the time of beginning employment—those who will be employed on the tuberculosis wards of these institutions. Ferguson[4] shows that tuberculosis occurs much less frequently among nurses and other types of personnel found to be tuberculin positive on employment, when comparison

is made with those found to be tuberculin non-reactors on employment. Heimbeck[6] and others have published reports of a similar nature and with similar results. It would seem advisable to give tuberculin tests to all applicants for employment on such tuberculosis wards. Those who do not react should not be employed among known tuberculosis patients until they have been successfully vaccinated with BCG, as shown by development of tuberculin allergy.

Summary

The use of BCG vaccine in mental institutions may, therefore, be summarized as follows:

1. Its use for present patients in mental hospitals is limited by the small proportion of non-reactors to tuberculin.
2. In schools for mental defectives, it may be used in a considerable proportion of the present patient population.
3. The proportion of new patients and new employees eligible for vaccination is not known. Further information is being gathered.
4. Non-reactors to tuberculin should not be employed among patients known to have tuberculosis until they have been successfully vaccinated with BCG.

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THE OBSTACLE MOTIF AS A TYPICAL DREAM EXPERIENCE

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A common type of dream experience which has received little or no stress is that containing an obstacle motif. Freud[1] went into considerable detail in discussing "typical" dreams by which he meant dreams of universal incidence and having a similar latent meaning with, of course, individual variations dependent on the psyche and past experiences of the dreamer. In that category he described dreams of falling from high places, loss of teeth, flying, embarrassment at being naked or scantily clad, failing in examinations, missing trains and death of beloved persons. Jones[2] added another to this group of "typical" dreams, that of emergence, after great difficulty, from a large chamber containing water (birth fantasy?).

The obstacle dream occurs rather frequently, in one guise or another, in normal and psychoneurotic, as well as in psychotic, individuals; and, when appearing in the course of psychoanalysis, it serves as a valuable indicator in evaluating the progress of therapy as well as in prognostication.

The theme, locale, circumstances and feeling tone accompanying this type of dream vary in different individuals as well as in the same individual at different times, but some characteristics may be noted. The dreamer is in the process of traveling toward an intended goal. The mode of travel may be by train, plane, elevator, automobile, walking or other means of propulsion. Usually, while making the trip, he has misgivings about even attempting it but finally succumbs to the urgings of others or goes against his own apparent better judgment.

At this point, each dreamer has his own individual technique for solving the dilemma of the obstacle. He may choose to overcome it by increased effort and then continue on the path toward his goal. In accomplishing this, he may find the task either extremely difficult or relatively easy. Or he may decide that the obstacle is too formidable even to attempt, and so turn back to the point of origin, at times at a deliberate pace, at other times at breakneck speed for fear of injury. Or he may compromise by not attempting to overcome the obstacle directly but by trying to circumvent it by following a less advantageous, rougher, longer or less pleasant

route; or, in the midst of his attempt, he may awaken suddenly with considerable anxiety.

In the course of analysis a patient usually has one or more obstacle dreams and, in a series of such dreams, may attempt various methods of handling the problem, the degree of success depending on the stage of analysis, the progress of the patient and the resolution of transference problems.

A few examples may help to clarify some of the dynamic forces underlying such dreams, although no effort will be made to interpret all determinants of the dream material. Only a cursory résumé of each case will be given, sufficient to understand the dream structure, although actual case material on each patient, except the first, is rather voluminous, due to long periods of therapy.

Case 1

This patient is a boy of 19, oldest of three children, the others being a boy of 16 and a girl of nine. The father is a domineering individual who always rejected the patient. The mother is a passive, submissive woman who had at least one "nervous breakdown." Although, when the patient was a child, she was excessively concerned about his welfare, particularly his eating habits (he has been markedly overweight since the age of nine), she has had little to do with him in later years and now displays an apparent indifference toward him.

Since the boy was 12 years of age he has been involved in various behavior difficulties such as stealing, truancy and rebellion against parental authority. He has always been unhappy and tense and has had strong feelings of inferiority. He is of superior intelligence; and his failure in college can be explained only on the basis of his rebellion. His hospitalization was due to severe behavior difficulties and excited emotional outbursts in the nature of tantrums. He made an excellent adjustment in the hospital, was free of tension and co-operated willingly to the point where he was placed in the transcribing department doing typing, at which he proved himself very adept and was considered a valuable worker. There was no evidence of rebellion during his hospital stay, and it soon became apparent that the home situation and earlier family influence played an important role in his illness.

Dream

"I'm riding on a train with the girls in the transcribing department. Miss F. [nurse in charge of his hospital ward] is driving. We're supposed to be going somewhere for a bridge game. Suddenly the locomotive comes to a stop, the tracks end and in order to get to our destination we would have to traverse six blocks through dirty, swampy terrain. I don't want to go so I turn and walk back to where I started."

Associations

"I don't know why I should dream about playing bridge except that it was an important game in my family. As a little boy my parents used to leave me at home frequently to go off to bridge games. I guess it has become a symbol of my feelings of rejection by them.

"Since coming to the hospital I've gained a feeling of security which I lacked before. I've always been a little fearful and shy of girls but here I've been able to work with them in perfect harmony. My previous attitude about women must have been wrong. Miss F. is a pretty nice person but I'm a little afraid of her and resent her because when I first came to the hospital she gave me my inoculations and she hurt me a good deal. She's apparently not very experienced at taking bloods. In the dream I felt that I wanted to go with the girls to the party but the fear of getting my shoes and clothes messed up by the dirt was too much for me. I don't know of any special meaning that the number six has to me."

Interpretation

We are here dealing with a severely traumatized and rejected individual whose only techniques for gaining any attention have been by oral (he now weighs 270 pounds) and aggressive behavior. Every woman, like his mother, is a potentially castrating and rejecting figure. In the hospital, for the first time in his life, he had been able to form some sort of relationship with women and was being accepted as an individual on an equal level. For this patient even to contemplate a more tender attitude toward women is a step forward. It should be noted, however, that Miss F., the castrating woman, the one who injured him, the mother figure, is still in the driver's seat and therefore a potential threat.

It is interesting to note that this dream occurred when plans were being completed for his release from the hospital to the custody of the father. The smooth-riding locomotive—with the suddenly ending tracks—then assumes the significance of the diminished fear of castration in the hospital environment and the ability to form a rather close although limited relationship with women. This, however, is still on a neurotic level as it implies that in order to be acceptable to women he must give up his masculinity and become like a woman (the only man working with many women in the transcribing department). In addition there is still the threat of the demanding, overbearing, rejecting mother figure, Miss F., and the ever-present father, who openly expresses his hatred for the patient and for whom the patient has only contempt. The neurotic dilemma therefore becomes clear:

"If I, as a man, attempt to love a woman (or my mother) I must reckon with my father who has always hated me and will certainly castrate me. As a matter of fact I'm almost convinced that my mother would not have rejected me had it not been for my father who dominated her and prevented her from showing any affection for me." (Whether the figure six has the significance of a castrated male genital in this particular case is difficult to say, but this is highly probable.) "If, on the other hand, to avoid this calamity, I must give up my strivings as a man and identify myself with the female, I have in fact castrated myself and have gained nothing in return. My only salvation therefore is to continue on my neurotic path, avoid entangling alliances with women and being satisfied with what little compensation I receive from my aggressive, irrational behavior. Certainly at the end of the filthy [sexual] marsh lies acceptance by a woman but only at the expense of losing my identity as a man, a price I'm unwilling to pay."

As in so many other neuroses, the dominating factor in the illness is the fear of castration, which is expressed in this dream as the chief obstacle to the relinquishing of the neurosis.

Case 2

This is the case of a 28-year-old woman who was hospitalized following a serious suicidal attempt by illuminating gas. During her hospital stay, she showed, at various periods, depressive episodes, unprovoked violence against patients and attendants, destructiveness, and feeling of depersonalization and detachment.

Attitudes toward the therapist varied from explosive outbursts, proclaiming her independence, to a docile and overt overdependence on, and pathological possessiveness of, him to such a degree that the mere sight of the therapist conversing with another patient would bring on a severe depressive reaction.

Her childhood was chaotic, to say the least. She was born illegitimately of very unstable parents, the mother having been described as a rather peculiar, unfriendly person who was sloppy in her personal appearance and made no effort to create a home. The father was a shiftless alcoholic who had been hospitalized several times for his drinking. It was only after the birth of another illegitimate child, the patient's brother, two years her junior, that the parents married at the insistence of welfare authorities who threatened termination of financial aid to the family unless this was done.

When the patient was three years old and the brother one, the mother died of pneumonia, and the children were left entirely in the care of the drunken, sadistic father. For several weeks they had practically no supervision, the patient roaming the streets looking for food in garbage cans and looking after the infant brother. A neighbor woman finally took them into her home and eventually married their father. Shortly afterward, the stepmother became irritated by the children; and they were passed on from one foster home to another, besides being sent to several institutions.

Traumatic experiences, some of which may be screen memories, include unprovoked severe beatings by the father and stepmother, several sexual assaults by the father before she reached the age of 10 years, and strongly antagonistic feelings against the brother because she felt that he was favored by the stepmother. The girl ran away from several homes and institutions and on a number of occasions earned a living as a prostitute, although with considerable guilt and remorse. She had an illegitimate child by a man she later married and then had the marriage annulled after a short stormy period, ostensibly because he had a serious criminal record. Although she had always been promiscuous sexually, she always picked men of a very inferior type and never experienced an orgasm. Her attitude toward men was either excessively domineering and possessive or masochistically dependent, with frequent instances of open hostility and violent rage directed against the man.

Dream 1

(In early stage of analysis): "I'm in the hospital elevator traveling to the main floor where I'm to get off and leave the hospital for home. As the elevator door opens and I'm ready to step out I see a human eye on the floor, badly mutilated, with some of the skin still attached to it. It looks as if it came from a fat person. In order to leave the elevator I have to walk over the eye or around it. I become very frightened and although I want to leave and dread going back into the elevator I decide to go back instead of having to come near that terrible sight."

Associations

"I'm scared to death of elevators. I never liked closed-in spaces of any kind. They remind me of death, coffins and vaults. Elevators are like coffins, you can't get out unless someone lets you. I had a dream recently about two dead people in a vault, a man and a woman. The man had his left eye crushed. My father had a bad left eye which was injured in the war. My brother also had a bad left eye. One time he almost stuck his right eye with an ice-pick and my stepmother warned him that if he injured the right eye too he will be totally blind.

"I can still remember my father going after me with a strap when he was drunk. I was paralyzed with fear. His left eye looked very menacing and I can still see it glaring at me. Yet, when he was sober he wasn't a bad man and he showed me the only tenderness I ever knew. He saved me from many spankings by my stepmother. I liked him for the good things he did for me but hated him for the things he did when he was drunk, such as beating me and doing sexual things to me. How can one hate and like the same person so much?"

(Question: "In the dream you speak of going home. What is your attitude about that?") "I hate being closed up in a hospital. It reminds me of a tomb, like the elevator. I would like to go out but when I begin to think of all the problems I will have to face again I'm frightened. I don't know what's better. Death seems to be the only solution. Yet I'm frightened of death. I'm reminded of the fact that when I was a little girl my father's way of threatening my brother and me was to say that he will kill us while we were asleep. Maybe that's why I have so much trouble sleeping

now or being left alone in a room. Locking me in a dark closet for hours was another way he used to punish me."

Interpretation

In this dream she finds herself in the unenviable dilemma of the neurotic, "I hate to isolate myself from people but I have to because of what they may do to me. If I do make an attempt to form some sort of a relationship with people, there is also the danger of what I may do to them because of all the hostility I've developed against them. It is better that I destroy myself."

The obstacle in the path of relinquishing the neurosis, therefore, is not only the danger to herself but to others, should she lose control of her destructive hostility directed against the people who have been responsible for her dilemma—or against their substitutes. The dream also explains her inability to form a tender love relationship with a man, her attitudes being markedly and repetitively determined by her ambivalent feelings toward her father, mother, brother or their substitutes in later life. At this point one would surmise that her neurotic attitudes are strongly in ascendency.

The dream also speaks for a severely-traumatized ego structure with a not too favorable prognosis. Analysis will have to proceed very cautiously for fear of precipitating an acute psychotic reaction. The fact that she even attempts the trip to health, although unsuccessfully, is indicative of a favorable factor, differing in that respect from the regressed schizophrenic who has given up the struggle.

Dream 2

(Late in analysis): "I'm in an airplane, learning to be a stewardess. We are traveling to a faraway place and I seem to enjoy it. The plane is preparing to land and I'm helping a male passenger with his safety strap when the plane suddenly lurches and I fall on his lap. I'm very embarrassed and start breathing hard because of the height. He tells me not to worry, that it won't bother me after I get used to it."

Associations

"The man looked like you. The way he spoke and reassured me gave me a pleasant feeling. I never actually knew any man to give me such a feeling. They've usually been disgusting and mean. I felt embarrassed because I was afraid he would think I did it purposely so that I might sit on his lap."

Interpretation

The sexual connotations in this dream are quite obvious and will therefore not be gone into thoroughly. However, the changing attitudes in her interpersonal relationships are significant. This dream, occurring after considerable analytic work and punctuated by extremely stormy episodes of resistance, indicates that some progress has been made. A good transference relationship has been developed and the fact that she even speaks in terms of tender feelings toward a man, although with considerable embarrassment, is a step forward.

There are still indications of strong competitive feelings—she is the stewardess, in control of the situation and in a position to be able to tie the man down as a safety measure. There is present also the strong expectation of injury by a man. She is somewhat puzzled by the fact that here is a man (the analyst) who is sincere in wanting to help instead of injuring her. Her neurotic armor is being pierced but it is significant that she still thinks of such a relationship as being entirely accidental (lurching of plane) and not as something to be expected and sought after as a healthy endeavor. She is, however, willing to think in terms of life rather than death, the major obstacle being the still present danger of developing sexual feelings toward a man.

CASE 3

A 28-year-old businessman came for therapy because of anxiety, depression and difficult business relationships with his partners who happened to be his father, brother, and brother-in-law. Extended analysis revealed strongly ambivalent attitudes toward his mother, with open antagonism serving as a reaction formation to cover up repressed erotic feelings. Along with this, there was the expected hostility toward the father and brother.

During this patient's infancy and childhood, the mother usually helped in the family business and had little to do with the rearing of the children, this being left to maids who were generally ignorant, coarse and uncompromising women. One in particular made a strong impression on the patient. She was apparently mentally deficient and assumed a very punishing attitude toward such activities as thumbsucking, masturbation and toilet training. Throughout the years, the patient had submerged, as well, an open rebellion and hostility toward an older brother whom the parents con-

sistently pointed out as a paragon of virtue and business acumen, toward a younger brother at whose birth the mother remarked to the patient (although jocularly), "Now we don't need you any more," and toward the father whom the patient contemptuously considered to be inadequate, stupid and overly submissive, "a virtual rug for the feet of my mother."

As a defense against his powerful Oedipal drives, as well as against the hostile and competitive feelings involving members of his family, the patient developed certain compensatory techniques which, as is usual in neurotics, were only partially successful. When threatened by external factors, anxiety was frequently the aftermath. His character defense was chiefly of a compulsive type. He was perfectionistic, worked almost slavishly many hours a day, and prided himself on the fact that he never made mistakes, never took a vacation and "would rather die than accept help from someone." He couldn't tolerate being wrong in anything he said or did and would argue endlessly to prove his point. He was unyielding in his attitude toward his employees—"a man is not a good administrator unless his employees call him a son-of-a-bitch behind his back." He was a strict disciplinarian with his children and resented any show of independence on the part of his wife, not even allowing her to learn to drive a car.

This type of personality, generally described as obsessive-compulsive or anal-erotic, constitutes a formidable armor to pierce; and his statement about not accepting help from anyone was an adequate warning of the analytic difficulties to be encountered in the future. The following series of obstacle dreams indicates not only the resistances encountered but also the indentations made into his armor by analysis.

Dream 1

(Seventeenth analytic session): "I'm in Central Park, I have to get somewhere in a hurry. It's raining and I'm looking for a short cut. I pick a muddy clearing in the field, but the route is practically impassible and my shoes are getting muddy. I decide on another route which is a subterranean channel, but I soon meet an obstruction consisting of large bundles of brown paper. I'm desperate and decide to climb over this obstruction in order to get to the other end. I finally reach the end of the obstruction on top of the bundles and find myself in the nude and embarrassed. I can't

make up my mind whether to jump down or not. The bundles are so weak and shaky I'm afraid I will be hurt. The dream ended with indecision."

Associations

"I'm now reminded that when I first began to walk through the muddy path I saw a male friend of mine who reminds me very much of you. He is tall, dark and wears glasses. I've always been rather antagonistic toward him, particularly during the war when I had to go into the army and he remained out. He was more friendly to me than I to him. In a way I envied him because he always seemed to have time for fun and he had such a relaxed, natural way with women that they liked him at once. Even my wife seemed to like him. But I don't know why I should talk about him, he's not so important in my life.

"Central Park brings back memories. There was a girl I thought I was in love with about 10 years ago, and we used to meet in Central Park, on a rock we called 'our rock.' We kissed and petted, but when I tried to have intercourse, she struggled a little, and I had an orgasm. I felt very ashamed and guilty and never tried it with her again, although I'm sure she would have been willing. She wasn't very pretty, and I guess that was why I was attracted to her. I've always been a martyr as far as women are concerned, becoming interested in girls no other fellows wanted just to show that I was above such material things as looks and social status. When girls give the impression that they are self-sufficient and have friends I drop them like a hot potato.

"I don't know what the brown paper means to me except that I remember we used a lot of brown wrapping paper in our business when I was a child and the garage was filled with bundles, just like in the dream. My mother always worked in the business, I hardly ever saw her. The only way I could get her to spend some time with me was to complain of being sick. That was the only time she showed any tenderness toward me. Somehow I also think of brown paper as being filthy, like a vagina, which I can't help but feel is wet and sloppy like the mud in the dream. I'm also reminded of feces with the brown bundles plugging up the tunnel, like constipation. Even though I've had intercourse many times I've always had the feeling that it was something filthy and that I had besmirched myself."

Interpretation

No attempt will be made to interpret this dream in all its phases, levels of meaning, and nuances but only to a degree suitable for the present purpose. It is a good example of characterological resistance occurring early in the course of analysis and utilizing the obstacle motif. The first phase represents the dreamer's preanalytic neurosis, which he at first handled reasonably effectively by neurotic character formation, thereby minimizing anxiety. But something of an experiential nature occurred to weaken his repressive powers; and, consequently, the armor created by his character defense became insufficient to handle the anxiety, resulting in his seeking therapy.

He describes this in the dream by saying in effect, "I have a goal to reach, the goal of life, but the route is becoming progressively more difficult." (It's raining, representing forbidden urges as expressed in his associations.) "I tried a short-cut, my neurosis, which wasn't nearly as satisfactory as the rational, reality-seeking road, but it served me fairly well as a substitute for 28 years. But something has happened to make this neurotic replacement untenable, as it is no longer able to subdue forbidden tendencies which are constantly forcing themselves to the surface. I'm getting dirty and muddy." (Note his associations to dirty and muddy as being vaginal in origin. Apparently, the failure in repression resulted from repeated "evidence" in everyday experiences that he was not acceptable to a woman and that there was danger of castration in his attempts to form a close relationship with a woman.)

"I must choose another route, the subterranean—deep-probing—channel of psychoanalysis. But this is also difficult and I meet with obstructions, particularly in revealing my problems of anal and incestuous origin, problems I have spent years in hiding from myself and the world." (The close association of intestinal tract, sexual intercourse, and psychoanalysis is worthy of note. One may even postulate that this passage through the canal represents a fantasy of birth[2]; but, at best, this can only remain a philosophical conjecture.) "I'm trying hard to negotiate this passageway on the other end of which lies reality and health, but will I be able to make it? Is my ego structure strong enough to make the leap from neurosis to health?"

This conflict then is the basis for the indecision in the dream and for the resistance in the analytic situation.

Dream 2

(Ninety-eighth analytic session): "I'm driving somewhere in my car, perhaps in Mexico. The road is bumpy but passable. I decide to try a different road but this turns out to be even rougher, sandy terrain. The surrounding land appears to be grazing country. I get to what appears to be a church but instead is a place where a Mexican man and his wife live. The Mexican man comes out and I'm suddenly aware of the fact that he intends to hurt me. I turn the car around and start speeding toward the previous road again. I awake with considerable anxiety."

Association

"The surroundings in the dream remind me of Oro Grande in New Mexico where we had our firing range during the war. It was grazing country with big cattle ranches and rough sandy roads. We practised shooting three-inch guns out on the range, and the noise frightened me. I was the azimuth finder and was always afraid that the shell might drop and explode before being shoved into the breach of the gun. Handling ammunition was always terrifying to me. (Note exaggerated fear of injury as association to the dream.)

"Last night I saw a movie short about Mexicans. The women were dancing and selling tortillas and the man was strumming his guitar and singing. He looked like the man in the dream, a dumb looking cluck." (The writer saw the same movie and can attest to the fact that this evaluation of the Mexican is emotionally tinged as he appeared to be a rather jovial, alert and amiable man.)

"The main feature was *The Naked City* which had to do with a man escaping from the police and meeting a violent death by jumping off a high bridge. I've always feared high places, yet I've taken airplane trips which didn't frighten me. There was an air of bravado about them though and I kept myself from looking out of the window. In high school the boys' room was on the fourteenth floor, and I was frightened at looking out of the window. A classmate of mine recently wrote a radio play having to do with a soldier returning to civilian life as a psychiatric casualty. I don't know why I'm telling you about this radio writer except that I feel reflected glory in the fact that he was a classmate of mine.

"To go back to the dream, the only time I went into Mexico was when I was stationed at Fort Bliss about eight miles from Juarez.

I went along with some other soldiers, and we were hustled by a pimp who took us to some women. The house was divided into little rooms, like horses' stalls. I talked with one of the women, and her price was one dollar; but I bargained with her, and she agreed to two orgasms for one and a half dollars. The whole thing was distasteful to me and I couldn't even have one orgasm. I was embarrassed and tried to keep it from the others. I felt that I had been played for a sucker. I now remember that when we first came into that whorehouse we sat down at table to drink some beer and to gaze at the girls we wanted to pick. This one girl looked very attractive to me and I noticed that the other fellows were giving her the eye too. I was glad when she walked over to me. In the stall she had little passion and was too matter-of-fact. I was a little frightened too because I noticed some Mexican men looking at us and I conjured up a fantasy that they resented us having interecourse with Mexican women and would later waylay us.

"The Mexican in the dream was short, swarthy, had a mustache, oily skin, flat nose, wide brimmed sombrero and white clothes. I'm thinking of my father who looks something like that. Yesterday my father visited and he was very affectionate to my little girl. She didn't take to him as well as she does to me. I resented his efforts to gain her affection." (Note the strongly competitive feeling with men for the love of women in this incident as well as in the Mexican brothel. It is not difficult to recognize in this a transferred Oedipal situation.)

"Yesterday my wife and I were driving along leisurely when we passed the minister's house. She seems to be attracted to him and insisted on dropping in to visit for a few minutes. I dislike him intensely and he impresses me as being a dumb cluck. He is short and has a mustache too, just like my father and the Mexican in the dream."

The foregoing associations to the dream are recorded verbatim and give a good clue as to the basis for his difficulties with both men and women.

Interpretation

After all these analytic sessions, the patient is still struggling with fears of injury or castration by the father or substitute (Mexican, minister, analyst, police, and so forth). He attempts to solve the problem by various neurotic techniques but, of course, unsuc-

cessfully. He at first tries to neutralize the threat of the father by degrading him ("he's a dumb cluck"), but this is not effective. He then attempts to place the father on a pedestal and submit to him (as the radio writer) but the threat remains. He goes to the other extreme of attempting to prove his superiority over the father ("I'm a potent man, I pre-arrange for two orgasms"), but the possibility of being attacked by the Mexican still remains. There is nothing left but to relinquish the field of sexuality to the father, that is, become impotent. ("All right, father, I won't have anything to do with your woman, all women, if you'll only spare me injury.")

It may be stated that up to this point in the analysis the patient had shown considerable improvement in his business and home relationships and appeared to be relatively free of anxiety and well on the road to recovery. The transference situation involving the analyst was progressing well, and the patient could discern no real basis for considering the analyst a threat. Several days previously, however, he had read an article published by the writer which precipitated a recurrence of symptoms. At the very next session he was more withdrawn, anxious and resentful. Laborious probing finally brought out the fact that being the author of a published manuscript re-established the analyst as an important and threatening figure. Also, the day previous to this incident, the writer had to make a sudden cancellation of appointment with the patient and accordingly telephoned the man's home and left the message with his wife, as the patient was out. The patient then brought up the fantasy that the writer knew that the patient was away and called deliberately in order to become intimate with his wife.

The meaning of the obstacle is now clearer. The patient is traveling along a bumpy road (neurosis) and decides to take another route (analysis). But the end of this road, which should lead to happiness and emotional health, turns out to be frightening and blocked by the castrating father figure. It is interesting that at this late stage of analysis he decides to turn back to the main road (neurosis). There is reason to believe however that this is only a temporary setback precipitated by the transference relationship.

Dream 3

(One hundred-fortieth session): "I'm traveling in my car and have to get to the next town, but, in order to reach it, I have to

cross a steep mountain. One policeman stops me and warns me not to attempt it as it is quite dangerous. I tell him I know the dangers but I must make it and have confidence in my ability to do so. Another policeman, less gruff and more kindly, nods to me, and says that with my determination I should be able to succeed, and urges me on. I continue to ascend and find myself near the top."

Associations

Unfortunately, a verbatim record of the associations was not made, but the productions centered about the improved relationship with his father as well as with his wife and children, and the generally diminished anxiety and tension. The road between his home and place of business is quite steep and he had actually had difficulty in negotiating it with his car. The dream ended with a happy note and a feeling of accomplishment.

Interpretation

It is evident that this dream occurs coincidentally with his healthier mental state and improved relationships with people. The father, or substitute, is no longer a threat to his attaining the mature goals of life involving, chiefly, being acceptable to a woman (wife, mother), and the futility of neurotic competitiveness with men. The first policeman is the analyst, as previously visualized by the patient, stern and forbidding. The second policeman is the analyst in the present transference relationship, the kindly, helpful, non-castrating father.

These three dreams indicate various stages of the analysis and elucidate the obstacles which stand in the way of progress, or are being met and overcome, on the road to health.

Discussion

One can say almost categorically that an obstacle dream occurring during analytic therapy represents a form of resistance and is to be interpreted as such. This, however, would appear to be an oversimplification of the complete dynamic situation for, like the neurosis itself, the dream is overdetermined and many different facets of meaning and levels of interpretation are evident. The more time one spends with a dream, the more obvious become the

numerous interrelated trends. It has been truly stated that an entire analysis can be carried out in the interpretation of a single dream. It is, therefore, with considerable humility that the foregoing interpretations are presented. A great many determinants have been omitted because the associations offered by the patients were not sufficient to be conclusive and were, furthermore, not necessary for the theme under discussion.

It is recognized that pre-Oedipal, Oedipal, oral, anal, homosexual, sado-masochistic and castration problems would be present in all dreams, if sufficiently analyzed. But, as any one obstacle dream is probably stimulated or precipitated by some external event or interpersonal flare-up in the ever-changing panorama in the life of the dreamer, it is the relationship of the dream to that event which is most important for the patient as far as interpretation is concerned. Thus, in the first case, the dream was stimulated by the fact that the first patient was the only man working with a group of women and by the fact of his impending release from the hospital to cope with his previous problems.

Similarly, in individuals not under analysis and apparently making a satisfactory adjustment in life, any event which at all threatens the character armor, such as loss of position, rebuff by a member of the opposite sex, loss of money at gambling, criticism by a stern employer, and other incidents too numerous to mention, may be the trigger point for an obstacle dream. The method employed by the dreamer in handling the obstacle is important in evaluating the degree of neurosis, the nature of the defenses, and the facility with which these defenses will be relinquished, in other words, the ability to benefit by insight and to face reality.

It is apparent that an obstacle which the dreamer considers insuperable offers a much more difficult task than one for which he recognizes a possibility of solution. The factors of the degree of anxiety at the sight of the obstacle, the speed with which the dreamer runs away from the obstruction, the determination either to tackle the problem or avoid it, are too obvious to discuss in detail.

Summary and Conclusions

1. The obstacle dream is offered as an addition to the group of typical dreams.

2. It is encountered in normal, neurotic and psychotic individuals.

3. It is of particular significance in patients under therapy, as it helps to determine the degree of resistance to improvement and the progress of therapy.

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THE B. E. S. T. IN THE TREATMENT AND CONTROL OF CHRONICALLY DISTURBED MENTAL PATIENTS—A PRELIMINARY REPORT*

BY JAMES A. BRUSSEL, M. D., AND JACOB SCHNEIDER, M. D.

To the institution psychiatrist, there is nothing more trying, frustrating and perplexing than the problem of the management of the chronically disturbed patient. The situation is a multiple source of disappointments, since it involves more than the isolated question of the patient himself. There are hazards involving other patients; there are dissatisfied relatives who, seeing no improvement—or perhaps a worsening—in a patient's condition, carry unfavorable reports back to the community; there are matters of administration and economy; and considerations of distracted and harassed personnel, constantly menaced by physical harm.

The problem of the chronically disturbed patient at Willard (N. Y.) State Hospital reached its zenith on the female continued treatment service which is under the supervision of one of the present authors (J. S.). Here the census of such patients was mounting daily because: (1) None improved sufficiently to warrant even a trial on a quieter ward; and (2) new admissions were constantly arriving. It began to appear that major construction might be needed to provide large enough facilities for disturbed patients, not to mention increased allotments in employees, drugs, restraint, clothing, bedding, etc. All of the currently-employed methods of controlling disturbed patients had been tried without success, including sedation, individual nursing care, restraint and/or seclusion, and the various modalities of therapy, including electric shock.

One of the authors (J. A. B.) suggested that intensive electric shock therapy be tried in the same manner that had proved to be so efficacious in military service during World War II. No one can definitely say how or when this method was conceived but it certainly was in use in the latter two years of the war, developed by hospital ship psychiatrists assigned to the Pacific run. On these relatively small hospital ships, it became practically impossible, in the face of inadequate housing facilities and undermanned

*Read at the May 1950 meeting of the Finger Lakes Neuropsychiatric Society, Willard, N. Y.

staffs, to control and care for violently disturbed patients for journeys that took up to 30 days. In the words of one colleague: "There were days when we thought these rampaging psychotics would scuttle the boat!" Purely on an empirical basis, it was discovered that the usual electric shock therapy application, administered in the morning and afternoon of *two* successive days, worked nothing less than miracles in converting wildly disturbed patients into quiet, tractable, co-operative, and *often improved* individuals.[1] Port military authorities were frequently amazed to receive a shipment of docile and manageable patients about whom a prior radio message had been sent describing them as "disturbed."

It was decided to try this intensive therapy at Willard—a modality which the employees concerned came to dub the "Blitz," ultimately leading to the term "B. E. S. T." (Blitz Electric Shock Therapy.) The authors think time and results have justified this descriptive classification.

The first question was the matter of selection. In most research investigations two groups are chosen, one for control and one for experimentation. In the Willard case, one group could well stand for both, pre-treatment histories and recorded activities serving for control comparison. It was further decided to apply the traditional physiological concept of "all-or-none," and 50 of the most disturbed female patients were selected. The preliminary selection was made by the nurses and attendants who worked daily with these patients and knew them better than anyone else. So far as practicable the usual physical pre-treatment work-up was carried out.

In order to appreciate the results of B. E. S. T., it should be pointed out that most of the patients in the treatment group had already received full courses of electric shock therapy and were currently being carried on so-called "maintenance shock therapy," without any perceptible evidence of improvement. Some patients had had as many as 40 to 50 shock sessions in their initial courses. Thus, B. E. S. T., while founded on electric convulsive therapy, is fundamentally a different modality of treatment as judged by administration and results.

What constitutes "disturbed"? Is noisiness enough to warrant this classification? Are other well-known descriptive terms needed

singly, or combined in groups? So far as "mild," "moderate" and "severe," or "periodic" or "continuous" were concerned, one rule was rigidly adhered to, and that was that each candidate for "B. E. S. T." must be a chronically and extremely disturbed individual. As it was realized that one patient, for example, may be devastatingly destructive, moderately hallucinated, and yet completely cooperative at meal times, each of the 50 women in the group was carefully catalogued on each of her disturbed characteristics, arbitrarily using a rating scale of 0 to 4, representing none (0), mild (1), moderate (2), severe (3), and extreme or uncontrolable disturbances (4). Figure 1 represents in graphic fashion 10 of these elements based on the 0-4 scale and projected to compare the selected features, prior to and after therapy. Figure 2 does the same for three modes of control, but the figures here are based on the actual number of instances of use in the group of 50 patients.

Tabulating the results of Figure 1 furnishes a terse, but pleasantly surprising, score as follows:

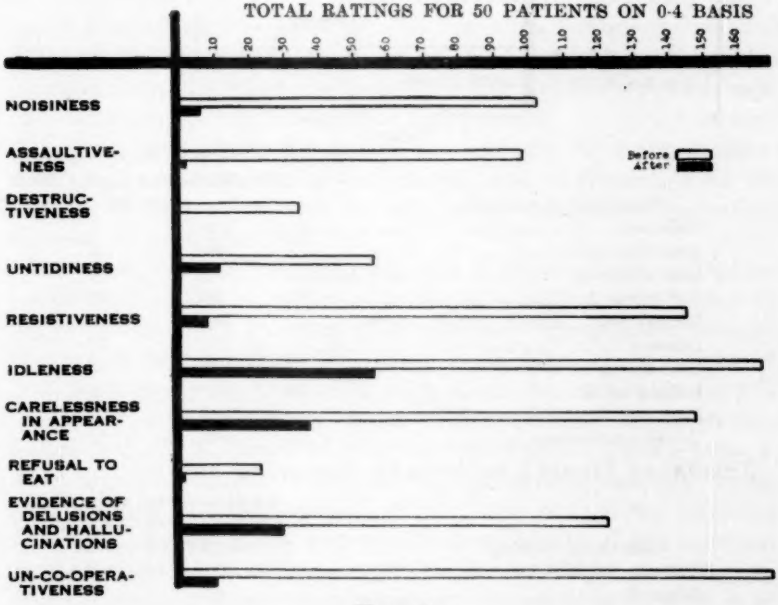

Figure 1

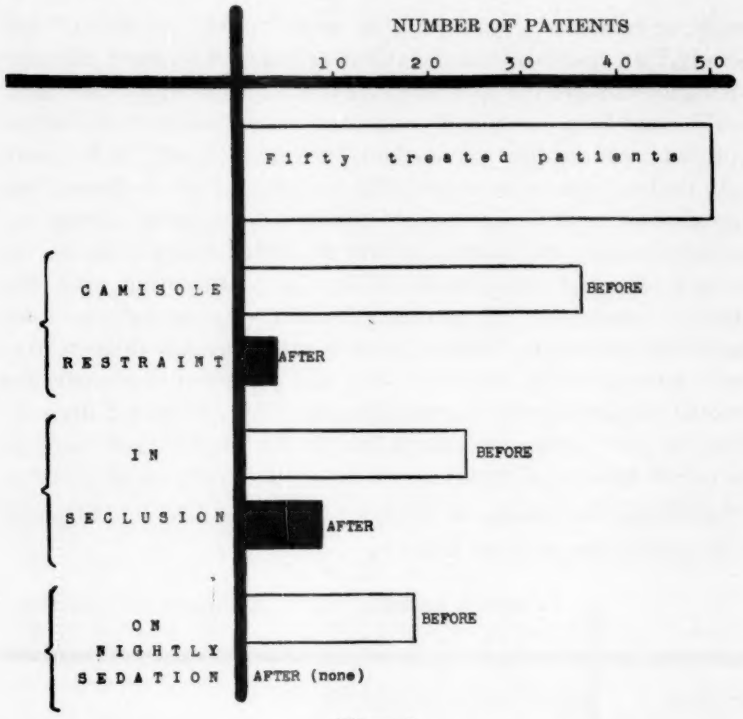

Figure 2

Element of disturbance	Total 0-4 score for fifty patients BEFORE treatment	AFTER treatment
Noisiness	102	5
Assaultiveness	99	2
Destructiveness	34	0
Untidiness	53	11
Resistiveness	144	7
Idleness	167	56
Carelessness of appearance	148	38
Refusal to eat	23	1
Evidence of delusions and hallucinations	122	29
Un-co-operativeness	168	10

Tabulating Figure 2 in the same manner, we have:

Controlling modality	Actual number of patients in the group of 50 BEFORE treatment	AFTER treatment
Camisole restraint	36	3
Seclusion	23	8
Nightly sedation	18	0

The patients selected, considering the size of this initial group, covered most of the more commonly encountered mental illnesses: schizophrenia, 34 (14 catatonics, 13 paranoids, seven hebephrenics); psychosis with mental deficiency, seven; manic-depressive psychosis, three (two manics, one depressive), senile psychosis, two; and one each of psychosis with cerebral arteriosclerosis, involutional psychosis, and general paresis. The ages ran from 22 to 78 years, or an average of 41 years. The patients had spent an average time in the hospital of *eight years,* ranging from six months to 37 years. It can be readily deduced, therefore, that age and diagnosis are no contra-indications to B. E. S. T., and that prolonged hospitalization up to many decades is likewise no deterrant.

The usual and accepted technique is used in which the aim is a grand mal convulsion and the average dose is 600 milliamperes for .5 second. It goes without saying that a well-staffed and trained shock team (or teams) is a "must," for transporting these violently and constantly disturbed patients.

So uniformly gratifying have been the results that it has been found most difficult to restrain enthusiasm. No better judge of therapeutic results can be had than the exhausted and pessimistic employees who have labored for years with these people. Perhaps the unscientific comment of one attendant sums up the judging of results when she came upon one patient who had been sadistically assaultive, destructive and profane . . . now neat and tidy, quiet, and knitting a muffler in occupational therapy classroom. The amazed employee gaped and muttered, "I'll be damned!" And at no time has any post-treatment complication whatsoever been observed.

As a matter of statistics, in addition to those offered in figures 1 and 2, all of the 50 patients presented a remarkable degree of improvement. The duration of remission of symptoms averaged two weeks, ranging from three days to 42 days. As a matter of fact, only one patient failed to enjoy a six-day remission (she is the one who had but three days). On the fourth day after her initial B. E. S. T., however, a repetition of this intensive procedure provided a longer remission. Again, once a patient's remission is known approximately, B. E. S. T. can be repeated upon the return of prodromata at or near the termination of the expected remission period; and thus a schedule is established, enabling patients to enjoy unbroken remissions and maintain improvement as

long as B. E. S. T., at intervals, is not omitted. The implications of this fortunate time relationship lead to another and more forward undertaking which will be discussed later.

There are many more improvement features that cannot be reduced to the cold and implacable field of statistics. For example, Patient F. C. has for many years been constantly disturbed, noisy, assaultive, filthy, doing what mischief she could in converting her seclusion room into a veritable pigsty. What a dramatic change to find this patient sitting quietly on the ward, perfectly neat and tidy, and—without urging—cleaning her room! Another patient had, for years, been unable (or had simply refused) to converse in any language other than Italian; yet, after B. E. S. T. she is speaking clearly and coherently in English. A third had always refused to reveal her age, but after B. E. S. T. she freely gave this information and any other personal data about herself which was asked for. Those with experience in large mental hospitals can appreciate the writers' feelings when it was possible to remove a half-dozen chronically suicidal patients from restraint and/or seclusion. From the materialistic point of view, the economy of the improvement cannot be neglected. The monetary savings on otherwise smashed window panes, destroyed clothing, blankets and bed linen, destroyed furniture and supplies, and the savings in outlay for sedatives and restraint apparatus is an important budgetary benefit. One patient alone, during the month of February 1950, hit an all-time record by personally ripping to shreds 57 blankets! Following her first series of B. E. S. T. she became neat and orderly, eschewed all destructive activity, and has remained that way.

A further and logical development has been the feasibility of convalescent care for these erstwhile disturbed patients, an idea that could never be otherwise entertained. Rather, it is this group for whom the gloomiest prognosis is given, and the lengthiest hospitalization anticipated. Preliminary planning is now under way at Willard to permit interested relatives (who had long ago abandoned all hope of ever having their patients at home), to take these radically improved individuals home on convalescence and look forward to maintained betterment and adjustment by continuing B. E. S. T. on an out-patient department basis. When the procedure, the time elements, and the goal are understood, these relatives should be more than willing to return the patient to the hos-

pital for two days, let us say, out of every two or three weeks as a far more desirable arrangement than having him remain in the institution for the rest of his life. A B. E. S. T. out-patient schedule can be predicated on each patient's remission period and a half-dozen beds on a rotating basis would replace the present system, whereby dozens of beds, meals, supervision, etc., are devoted constantly to the housing of disturbed patients. A plan should be achieved ultimately that carries a comparative time-table regularity. If insulin and liver have kept the diabetic and the anemic out of the hospital and well adjusted on an out-patient basis, it may be that B. E. S. T. can do likewise for the mentally ill.

Out of B. E. S. T., there is an interesting sidelight upon which to reflect with reference to the future of military psychiatry.[2] Maintaining the acutely disturbed neuropsychiatric casualty until he is discharged, encountering added difficulty in transporting him from foreign shores to the continental United States, and then from military establishments to hospitals of the Veterans Administration, has always presented serious problems to psychiatrists in the armed forces. Now we may justifiably anticipate the time when B. E. S. T. will obviate such difficulties.

Finally, the improved morale of employees has been so striking that cases will be cited here, with descriptions in substantially the words with which nurses and attendants wrote them up when their opinions were solicited.

Case Histories

E. H. Diagnosis, dementia præcox, catatonic; age, 35 years; in the hospital, 10 years. Previous to B. E. S. T., she was very disturbed, incoherent, un-co-operative, irritable, and beat herself about the head and body. She required almost constant restraint to prevent injury to herself and others, being assaultive to anyone who dared to approach her. Since B. E. S. T. (March 20 and 21), she has had periods of about two weeks when she is very co-operative, quiet, friendly, and enjoys doing embroidery work. April 10 and 11: She was as just noted; treatment was repeated before she became too disturbed again. April 26 and 27: She was much better and rallied from confusion following her third treatment earlier than previously. She continues good today (May 1) and is busily engaged in embroidery or reads to break the monotony.

D. C. Diagnosis, dementia præcox, catatonic; age, 42 years; in hospital, 19 years. Prior to B. E. S. T., this patient was extremely overactive and over-productive. She had an uncanny knack of getting out of a camisole regardless of its size or shape. She sang night and day, made up the lyrics to include the names of physicians, patients, nurses and supervisor, all with a sexual trend. She claimed that she was lactating and urged everyone to taste her milk; kept her pubic hair pulled out; tore camisoles with her teeth, ripped up mattresses and any clothing she had on; and during the past winter, destroyed four to five blankets every 24 hours for weeks. When removed from seclusion for bathing, D. C. was violently assaultive, would try to break windows and pull other patients' hair. She refused to eat when in restraint, would scream for long periods, and it was impossible to quiet her. During the rare times she was quiet, she would urinate on the floor of her seclusion room and then spread the urine evenly over the floor. First treated March 13 and 14, she was nauseated and vomited after each therapy session. She was very pale and did not get out of bed between treatments. Following B. E. S. T., she was quiet, co-operative, worked when asked to do something, seemed to be bothered by the noise of other patients, cared for her own clothes, and was neat and tidy. On April 2, she became very upset when another patient grabbed food from her tray. B. E. S. T. was repeated April 3 and 4, but this time the patient slept between sessions and did not vomit. Since that time, she has been quiet, cooperative, neat, clean, never destructive, and does many little favors for other patients. However, she remains somewhat seclusive.

M. W. Diagnosis, dementia præcox, catatonic; age, 36 years; in hospital, 11 years. Formerly very insulting, profane, assaultive, M. W. would kick at the doctor when he made his rounds, was threatening, foully abusive, spat, destroyed clothing and dishes, and was totally inaccessible. Following B. E. S. T., she worked all day, sweeping until blisters appeared on her palms. She became neater, and interested in other patients. She checks with the nurse each day to see if she is scheduled for B. E. S. T. When she is not, she breaks out in a broad smile. She now speaks of her family, which she never did before, and actually shows marked respect for other patients on the ward.

N. S. Diagnosis, dementia præcox, hebephrenic; age, 30 years; in hospital, 11 years. This patient has shown the least change of any following B. E. S. T. Prior to treatment, she walked the floor all day long, pacing up and down, swinging her arms as though she would strike anyone within reach. She muttered and swore as if in response to hallucinations, and was assaultive on occasion, especially if the other person were smaller than she. She spat at every window she passed. At times, she screamed and threw herself into a chair, wailing she was being harmed. N. S. never answered people, except when her name was called, and then replied with a stock response, "Jesus Christ—what?" After B. E. S. T. (March 20 and 21), she would sit silently in a chair and look at others blankly and wordlessly when addressed. On April 11 to 12, she was quiet, co-operative, interested in her clothes and surroundings, but had blocking of speech as if unsure of herself. When asked, she would dust furniture or push a polisher. On April 30, N. S. became assaultive, but, after B. E. S. T. on May 1 and 2, became quiet again, interested in her personal appearance. Since then she has taken to sewing, and earnestly tries to do everything she is told.

L. P. Diagnosis, dementia præcox, catatonic; age, 31 years; in hospital, 13 years. L. P. was untidy, assaultive, un-co-operative, spending most of her time lying on a bench or the floor with her head and face covered. She did nothing voluntarily, had to be led, often pushed, to dining room, bed, or bathroom. She was frequently irritable, and if touched, would fly into a rage and bite, kick, scratch and pull hair. L. P. never talked, smiled or answered questions, but, while assaultive, would curse. After B. E. S. T. (April 20 and 21), she asked to go to bed after the first therapy session and was allowed to do so. Following the other three sessions, she slept for a brief interval each time. After the fourth treatment, she chanced to pass her physician. The patient was *voluntarily* going to the bathroom. The doctor asked her, "Lena, how do you feel?" "Fine," she replied brightly. "Why, do I look sick? Her appetite has improved. She is neat and tidy, takes an interest in her appearance and clothing, is friendly and co-operative. She does not accept the fact that she is in a hospital, and, if queried on this, will change the subject and talk of the

weather or her appetite, or ask for a cigarette. She objects to going to the dining room, asking to be served in her dormitory. As of May 5, she continues to maintain improvement.

Summary

1. A method of treating chronically disturbed patients, regardless of age, diagnosis or length of hospitalization, is offered and described, with a title offered, for convenience, B. E. S. T. (Blitz Electric Shock Therapy). It is particularly recommended, and has proved to be remarkably efficacious, in those patients who cannot be controlled by such means as restraint and sedation, and for whom a hopeless prognosis is indicated.

2. Gratifying results have been described and the clinical factors have been tabulated for purposes of comparison. Other benefits such as better community relations, economic savings, improved employee morale, etc., are also briefly discussed.

3. The complete lack of unfavorable complications is mentioned.

4. B. E. S. T. is recommended as an adjuvant in therapy for military neuropsychiatry.

5. Convalescent care for these patients, with the administration of B. E. S. T. on an out-patient basis is delineated.

6. Sample case histories, with descriptions as written by nurses and attendants, are reported.

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NONSTANDARD METHOD OF ELECTRIC SHOCK THERAPY*

BY J. H. KOENIG, M. D., AND H. FELDMAN, M. D.

With the introduction of shock therapies for the treatment of the mentally ill, an enormous step forward was made in the field of clinical psychiatry.

Unfortunately, not all patients respond favorably to one type or another of these modalities, such as insulin, electric shock, metrazol or combinations of these. Great numbers of patients remain within the walls of our state hospitals permanently. Others, if released, return after short stays on the outside, not being able to readjust in the family and community.

The large numbers of patients who stay in our hospitals confront us with the problem of what can and should be done for them. With the passing of time, their regression and deterioration come more and more to the surface. Many become great behavior problems because of assaultiveness and destructiveness.

It is a challenge to all psychiatrists to find a way to improve the existing situation. The term "challenge" is used because all are fully aware that the methods now at our disposal of handling all such patients are inadequate and outdated, considering the great progress clinical psychiatry has made within the past decade. Are the protection sheet, camisole, seclusion or sedation the only things we can do for those patients to make them harmless to themselves, to other patients, to employees, to visitors, and to save hospital property from destruction? Such patients are kept in a state of hibernation, deprived of their freedom of movement for weeks and months at a time; and under their restraint, they often develop decuvitus ulcers and secondary infections. When one thinks of them, there is a feeling of helplessness and frustration.

In 1942, while hopes were still high that electric shock therapy was the answer to mental ills, "miraculous cures," accomplished through its application, gained wider and wider recognition; electric shock practically replaced metrazol and insulin in many hospitals throughout the country. The present writers shared in the general enthusiasm, but soon realized that the application of elec-

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tric shock therapy had its curative limitations. Failures, were observed in spite of temporary improvements, or total failures were seen from the commencement of the treatment. These failures were in part responsible for the writers' trial of "double" electric shock therapy.

At the suggestion of one of the writers of this paper (H. K.), who was at that time in charge of a shock unit at Arkansas State Hospital, the approval of the superintendent and clinical director of that institution was obtained for a trial with "double" electric shock (one patient received ECT daily twice a week, and as many as four ECT daily). At that time, thought was still in terms of cures. However, it was soon found out that though marked improvements were achieved, these were of short duration; and patients treated by this method would relapse into their previous disturbed conditions. Of the group of 14 patients treated at Arkansas with this non-standard method, only one achieved a lasting improvement. She was released from the hospital in 1943, and has remained out. The others, although failing to maintain improvement, became better patients, were easier to manage, and reverted to better levels of existence. The treatments were well tolerated by the patients, and no untoward symptoms except for such sequelae as memory impairment, headaches, etc., were noted.

In view of this previous experience, and the writers' broadening knowledge of the use of ECT, its relative safety as demonstrated by accumulating reports of its application in series of two. three, four and five treatments daily in acutely or chronically ill patients under the name of "block method"—and furthermore, in view of similar work done at the Psychiatric Institute, Kings Park State Hospital, and Dr. Glueck's Clinic in Ossining, N. Y., as well as in England, Italy, and South American countries—the writers decided to apply the double ECT to Manhattan (N. Y.) State Hospital's chronically disturbed, assaultive and destructive patients, the type who represent such a great problem to the hospitals. The plan was to observe the effects of double ECT on their general behavior and attitude.

This project was undertaken purely as a palliative treatment, and the main aim was to improve the condition of the disturbed wards under the writers' care. With approval of the director and clinical director, the work began in December 1949.

Materials and Methods

Up to date of this report, 31 patients have been treated. The group consists of schizophrenics; and the subgroups are: paranoid, 19 patients; catatonic, nine; hebephrenic, three.

Each case is of long duration (two to 19 years), previously treated with insulin, metrazol, ECT or a combination without appreciable benefits. They were all assaultive, impulsive, destructive, 14 of them were also incontinent. They required mechanical restraint and sedation from time to time.

Each case selected is discussed with the clinical director, as to eligibility for the treatment, and has to meet the following criteria: (1) duration of illness two years or more; (2) previous treatment with one or another form of shock therapy or a combination; (3) behavior—assaultive, destructive, incontinent; (4) mechanical restraint and sedation required (frequently); (5) good physical condition.

The physical condition of the patients selected for this type of treatment was gone into very carefully, since any shock therapy is a strenuous treatment *per se;* and, in its double application, so much more of a strain is added to the person's tolerance. Each patient had a thorough physical examination, routine blood count and urinalysis. When indicated, x-rays, EKG studies or medical consultations were requested.

The writers were cautious and conservative because they were feeling their way in this nonstandard method, and were wary of possible complications. The literature is still meager on the subject of deaths and other after-effects. On the day of treatment, breakfast is withheld, the bladder is emptied, temperature is checked, restraint is used on very disturbed patients, and—for the treatment itself—sandbags are placed under the lumbar region. Voltage between 110 and 120 is applied for 0.3 and 0.4. sec.

I

The first treatment begins at 9 a. m. The second treatment follows after an interval of an hour and a half at 10:30 a. m.

II

For the second application, the patients are, as a rule, fully awake, though some of them may still have a fair degree of confusion. After the interval of an hour and a half, one is able to ascertain whether any complication has arisen. After they are fully

awake, following the second application, dinner is served to them. As a rule all patients tolerate the treatments well, and no untoward effects are observed except for the usual complaints of headaches, memory impairment and generalized muscular aches and pains.

A course of treatment was arbitrarily set as 12 to 15 double applications. However, during study of this nonstandard method, it was found that patients, as a rule, responded favorably after two to five double applications. Therefore, the course was lowered to ten. At the end of this treatment period each case is re-evaluated. If there is no improvement, a decision is made as to whether further double ECT should be given.

Results

In Manhattan State Hospital 31 patients have completed treatments, and 10 more are still on treatments. Of the first 31 patients, 30 are improved, and the following beneficial effects were observed: (1) The patients quieted down to a point where restraint and sedation were done away with practically altogether. (2) They began to care for their personal appearance, and improved in habits. Incontinence is practically non-existent. (3) A large percentage made themselves useful by helping out with ward duties. (4) They showed willingness to bathe, in contrast to previous resistance. (5) Oral hygiene improved. (6) Some of the patients were able to attend the dental clinic. (7) Some attended O. T. classes, while others did O. T. work on the wards. (8) Relationships between the patient and the hospital personnel took a definite turn for the better. (9) There was a decline in noise, which had greatly intefered with other patients during the day, and with their sleep at night.

Besides these effects, there were other beneficial aspects: (1) Pleasure and gratification were derived by relatives while visiting patients, and appreciation was expressed toward the hospital. (2) Relationships improved between patients and employees who now have more time to devote to the patients. (3) There was a saving of hundreds, even thousands, of working hours during the year by doing away with the restraining of patients, as the application of one protection sheet takes, as a rule, 20 to 30 minutes, requiring from three to four employees, and in certain cases even more.

To illustrate the results further, two representative cases will be cited briefly:

Case 1. E. M., 39 years of age, had two residences in Brooklyn State Hospital where a diagnosis of dementia præcox, paranoid, was made. She was admitted to Manhattan State Hospital on March 2, 1945, where she has been ever since. This patient was disturbed practically all the time, frequently requiring mechanical restraint and sedation. She had already received the following therapy: an unknown number of metrazol treatments at Brooklyn; and a combination of insulin and ECT at Manhattan, altogether 63 insulin treatments and 22 grand mals with ECT. The patient showed no improvement following these treatments. She remained disturbed, assaultive and destructive.

From January 1, 1949 until December 31, 1949, F. M. had required almost constant restraint, with sedation in addition.

Since the institution of the double ECT, three times weekly, which began on December 19, 1949, the patient had shown a gradual improvement until the treatment was terminated on February 3, 1950 with a total of 15 treatments. She maintained her improved status until March 24, 1950. Only once in January, during the treatment, was she under restraint, for a few hours during the night. She is no longer incontinent, now taking care of her personal appearance, and is neat and tidy. She attends O. T. classes.

On March 24, 1950, this patient was showing signs of a relapse; she had gradually lost interest in her O. T. work, and had become more withdrawn and seclusive. Treatment was again instituted, and a single application of double ECT brought her back to an improved condition. During this period of improvement she began to show interest in her surroundings; she socialized fairly well, and seemed to have gained some insight into the nature of her illness, inasmuch as she began to ask questions about her husband and son, inquiring if the husband still would like to have her at home in spite of her illness. She does not realize that her marriage was annulled some time ago. She also, on many occasions, approached the employees on the ward apologizing to them for the trouble she had caused during the period of her disturbed behavior. This patient maintained her improvement for seven weeks without any maintenance treatment.

Case 2. J. H., 41 years of age, was admitted to Manhattan State Hospital on September 24, 1946 and was diagnosed dementia præcox, hebephrenic.

Since her admission to the hospital, she had been overactive and hard to manage, showing aggressive and assaultive tendencies. She failed to respond to three courses of ECT during which she received 71 grand mals. Insulin therapy was not given because she was too disturbed and resistive. She failed to derive any benefit from the electric shock treatment, and continued to be noisy, assaultive and destructive. She required practically constant restraint and sedation.

After receiving double ECT, instituted on December 19, 1949, and totaling 15 treatments, the patient quieted down considerably, and the amount of restraint required dropped markedly. Thus, in January she was under mechanical restraint three times; in February, eight times; and from February 20 to March 30, has required none. In this case, the patient maintained her improvement for 14 to 16 days, being treated at bi-monthly intervals. Since her improvement, she has quieted down, is co-operative, friendly and pleasant. She makes herself useful around the ward helping out with some of the light ward work. She also attends O. T. classes on the ward. She is in fair contact, neat and clean—reverting from her previous incontinence. She also displays interest concerning her family and children, and recently wrote a letter to them. From time to time, she asks if she has a chance to leave the hospital.

The two cases cited are a fair sample of the group of treated patients; their behavior histories are approximately the same, and they are comparable in number of mechanical restraints applied. These two cases were selected primarily because they began treatment at the same time, and have maintained improvement after completion of courses of 15 double ECT.

Case 1 maintained the improvement for seven weeks, Case 2 for 14 to 16 days.

Discussion

Intensive ECT is not a new thing. As many as five convulsions with 10 to 20 minutes have been given to patients by some investigators. The writers have been told of a case where 800 ECT's were administered, with no deterioration reported, a matter which might seem doubtful.

In light of these large numbers of shocks, the present writers' nonstandard method of double ECT does not appear at all drastic. Nevertheless the vital question remains unanswered at what number of treatments should one stop. The writers believe that they are justified in treating a group of patients for a period of half a year to a year—at the end of that time re-evaluating each case and deciding if further treatment should be given. Again, why patients who had been treated in the usual manner and did not respond should react favorably to the present method, the writers do not know.

To repeat, the purpose in undertaking this work was eminently practical. The aim was to transform a disturbed ward into a quiet one. It is realized that this is a formidable undertaking, and the authors are not rash enough to claim complete success. But one may consider the results achieved in a ward where patients were constantly disturbed and almost continually in restraint. Work with disturbed patients requires many hours on the part of the employees, if one allots only 20 minutes for each application of a restraining sheet. But if after treatment this patient needs no restraint, and if one multiplies this result by many, it may be realized what this means to the administration of the ward. It is not only that the patients change for the better, but the entire atmosphere of the ward is different. It is not only that property has been saved. The working hours saved by the employees are used for the benefit of the patients instead of being lost on the work of restraining them, and there also has been observed a considerable drop in the sort of minor accidents which may lead to major accidents. The wards are cleaner now, quieter; the employees feel more at ease; occupational therapy has been instituted in the day rooms; and, on visiting days, relatives are pleased to see the improvement in the patients' behavior.

There is no claim here that the present method is the only one to use for chronically-disturbed patients. Others advocated at the present time include psychosurgery. However, psychosurgery is not so easily applied. It requires higher skills, which are not readily obtainable everywhere. Furthermore, psychosurgery has the quality of irreversibility which the ECT does not have, or has only in a minimal degree.

Summary

I. Forty-five patients have been treated with the nonstandard ECT method reported here; 31 of these patients were treated at Manhattan State Hospital.

II. Of the 31 Manhattan State Hospital patients, 30 have improved.

III. The improvement consists of the control of destructive and assaultive tendencies of the patients, and a change in the atmosphere of the ward and the environment.

IV. There was a saving of employees' time, which was diverted into reconstructive work for the patient's benefit. There was a saving of hospital property, and a decrease in accidents to patients and employees.

V. The most important change is noted in the general behavior pattern of the patients and in the patients' health.

Conclusions

The writers do not put forth any revolutionary claims for their method of treating chronically-disturbed patients. They use double ECT, three times weekly, and consider a course of treatment to consist of 10 applications. They have obtained very gratifying results with this method, and feel that it warrants further exploration.

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NEUROTIC CRIME VS. CRIMINAL BEHAVIOR*

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It is common knowledge that the psychoanalytic interpretation and treatment of criminal behavior is, as a rule, both less convincing and less successful than is that of neurotic behavior. This situation is a striking one, especially if one is inclined to accept the, by now common-place, proposition that neurosis, perversion and criminality are three possible means through which the organism may seek to alleviate internal tensions and anxieties, in a sort of misguided attempt at self-healing.

Our extremely limited understanding of the dynamics of criminal behavior is not due entirely to the fact that few criminals have been psychoanalyzed, although, obviously, the lack of clinical material on which to base sound theoretical conclusions is an important obstacle to a fuller understanding of the problems of criminal behavior. It is one of the theses of this essay that our lack of understanding of the dynamics of criminal behavior is, to an appreciable extent, rooted in an appalling confusion between isolated criminal *acts,* and consistently criminal *behavior.* This failure to discriminate between two entirely distinct phenomena has led to the following situation: On the clinical-investigative level, psychoanalysts and psychiatrists have collected a considerable amount of material concerning the dynamics of the *isolated* illegal *acts* of otherwise law-abiding citizens, and then transposed these insights to the habitual criminal, in an attempt to interpret "criminality in general." In other words, they have engaged in illegitimate extrapolations, and have drawn conclusions from one set of phenomena to the other, without ever seeking to prove that the nexus between the two was a substantive and genuine, rather than an imputed and spurious, one.

It is probable that the confusion just mentioned has its roots partly in the unconscious scotomata of the investigators—scotomata which are especially restrictive and deceptive ones, since they are disguised as insight and empathy. In other words, in seeking to obtain an understanding of the motivational structure

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of *habitual* criminality, the investigator responds to the material disclosed by his subject by means of an echo of his own unconscious, which, as it happens, is, in this case, a distorting and fallacious pseudo-echo. In simpler terms, the *region* of the investigator's unconscious which "responds" to the behavior of the habitual criminal is a segment of the investigator's id, which the investigator mistakenly assumes to be the counterpart of the motivational structure which determines *habitual* criminal *behavior.*

It is the central thesis of this essay that attempts to exaggerate the superficial similarity between the occasional or unique illegal act of the "average" normal or "average" neurotic law-abiding citizen, and the habitual criminality of the professional criminal lead to a logical impasse, because the similarity between the two phenomena is a superficial one, and because such attempts disregard the fact that *homo unius criminis* is, in every significant respect, radically different from the habitual criminal.

Nothing said herein should be misconstrued to mean that we are attempting to revive the appallingly naïve myth of the "born criminal." Such a viewpoint is an utterly fallacious ones, and must be repudiated in the most intransigent manner.

To be specific:

(1) Only a kind of genetic speculation approximating what might be called *pseudobiologia phantastica* could cling to the myth of the "born criminal" when it is, e. g., known that in India whole tribes and religious groups (Thugs) have been rightly classified as "criminal tribes."

(2) Only genetic speculations of a Lamarckian type of *pseudobiologia phantastica* can be based upon the hypothesis that there exist "innate criminals," when it is known that that which, in early Norman times, was a felony (e. g., shooting the king's deer), punishable by grave mutilation, is today no more than a misdemeanor, and that, conversely, certain acts which a few centuries ago, or even a few decades ago, were perfectly legal, are today grave offenses in the sight of the law.

At this point it is possible to object that the present writer himself affirmed 10 years ago[1] that it is of the essence of every neurotic symptom, of every perversion, and of every criminal act, that, if it is to alleviate anxiety, it must be a culturally deviant, or even an anti-social form of behavior. The writer continues to believe in the correctness of this thesis, which assigns a testable and

clinically-meaningful significance to the subsidiary statement, which has gradually degenerated into a shibboleth, that neurosis, perversion and criminality are, within limits, mutually exclusive phenomena. In this *strictly limited* phenomenological sense it is, indeed, legitimate to predicate a nexus between the single criminal *act* and habitual criminal *behavior*.

It must be stressed, however, that this very genuine phenomenological similarity, and the similarity between the underlying anxiety-controlling *functions* of these acts, casts no real light upon the *structural* aspects of such illegal behavior-patterns, and does not, *a priori*, justify depth-psychological attempts to proclaim a fundamental similarity between the dynamics of an occasional crime and the dynamics of habitual criminality.

It might be noted in passing that one cannot but be surprised that the confusion between isolated criminal acts and habitual criminality should have persisted with such tenacity in the very teeth of crushing empirical evidence to the contrary. It is a matter of common knowledge among penologists that the authors of crimes of violence, and—to pile Pelion on Ossa—especially the authors of the most "revolting" murders (parricides, infanticides, etc.) are, broadly speaking, model prisoners, and the best of all possible rehabilitation-prospects, whereas the habitual pickpocket is almost beyond redemption. Even the law knows this, and certain courts act upon this knowledge, when, regardless of the nature of his crime, which is often a relatively "minor" one, they inflict life imprisonment upon the habitual recidivist. Psychiatrists are, therefore, apparently almost alone in stubbornly clinging to the myth of a fundamental similarity between isolated crimes and habitual criminality.

The Unique Criminal Act

The writer proposes to consider under this heading two types of illegal modes of behavior:

(1) Truly unique criminal acts, premeditated or otherwise, as exemplified in the appalling tragedies of average people, who kill an enemy, impulsively rape a "date," etc.

(2) The occasional, and realistically often almost meaningless, illegal acts of neurotics, as exemplified in kleptomania, etc.—acts which are so ego-dystonic that they are frequently blanketed by amnesia.

Individuals who perform these two types of illegal acts are usually neurotics, characterized by a considerable amount of free-floating anxiety, which their armamentarium of neurotic symptoms does not succeed in binding either securely, or permanently. These illegal acts may, hence, be viewed as *supplementary emergency-symptoms,* and probably represent a break-through of instinctual forces which, as Freud so eloquently proclaimed, have become distorted into monstrous shapes *as a result of being repressed.*[2, 3] Thus, these acts primarily represent temporary failures of repression, and should, hence, be classified as neurotic symptoms, rather than as criminal acts. In other words, their interpretation does not require a minute consideration of character-structure. Rather does it call for interpretations in terms of intrapsychic economy, and of the constellation of dynamic checks and balances between the id., the ego and the super-ego.

Habitual Criminality

It is the opinion of the present writer that habitual criminality —including the "genteel" criminality of those of whom Blackstone has said that he who does everything not prohibited by the law is a blackguard—does not represent primarily a temporary break-through of repressed instinctual forces, and is, therefore, not indicative either of an inability to repress, or of an inability to sublimate. It is very probable that habitual criminality should be interpreted as a manifestation of the character-structure, whose armor[4] is predominantly composed of certain defenses which work very well indeed—in fact, which work overtime—in repressing healthy instinctual drives. Needless to say, this statement presupposes the assumption that these defenses *happen* to be criminal ones.

In the case of the occasional neurotic "criminal," the leading presenting symptom is closely related to the neurotic's basic problem. Hence, his occasional "criminal acts" are to be viewed as temporary failures of the non-criminal repressive defense mechanisms. Those failures are triggered by the inability of the neurotic's habitual neurotic symptoms to control *permanently* the load of tension and anxiety generated by his basic conflict, which may be an Oedipal, an aggressive, or any other kind of conflict.

In contradistinction to the problems of these neurotic "illegalists," the *basic* conflict of the habitual criminal is "solved" (sub-

jectively) once and for all. His repressions hold his repudiated instincts in a vise-like grip, and his defenses against these impulses and conflicts seldom if ever fail him. The entire system of his defenses has been deposited, layer by layer, into his character-structure, until the basic conflict and the basic impulses are concealed not merely from the criminal himself, but also from anyone who does not undertake a well-nigh endless exploratory analysis of criminal individuals. The criminal behavior of these individuals is not open to the almost "direct interpretation" of hysterical symptoms, which reveal the basic conflict by the very manner in which they disguise it. There is probably an even less obvious relationship between habitual criminal behavior, and the basic conflict underlying it, than there is, e. g., between the specific hidden conflict of an obsessive-compulsive and his overt symptoms. In fact, one of the greatest of all obstacles to the discovery and interpretation of the criminal's basic conflicts is the fact that the obtrusiveness and conspicuousness of his symptomatology obscures outright, rather than merely fails to show, its direct relationship with his basic conflicts.

The foregoing considerations are, admittedly, theoretical ones. However once the problem of "crime" is investigated in terms of the hypothesis of a basic difference between the neurotic "illegalist" and the habitual criminal, only this answer is logically possible.

There is at least one direct bit of evidence which has been rather consistently disregarded by psychiatric students of criminals, and which reveals, with the uttermost clarity, the real nature of the structure of criminal behavior, just as, even in the case of the most elaborate system of obsessive-compulsive symptoms—each of which is elaborately "irrelevant" with regard to the basic conflict of the obsessive-compulsive—an examination of the *over-all* pattern of the symptoms reveals, from the bird's eye view, a broad duplication, if not of the basic conflict, then, at least, of the skeletal outline of the psychic process whereby a given conflict has resulted in the formation of a large set of symptoms, which, superficially, do not reveal the real nature of the basic conflict.

The reference is to the singular fact that many habitual criminals, in seeking to achieve "moderately" objectionable aims, will utilize *means* which result in the commission of far more objectionable crimes (e. g., murder while holding up a man for his

money), or else, in seeking to avoid detection and escape punishment for a "mere" burglary, will murder the policeman who tries to prevent their escape. This pattern even continues in prison, witness murders committed by men seeking to escape from prison to which they were confined for only a few years, etc. This pattern has, mistakenly the writer thinks, been interpreted in the past primarily as a self-punitive mechanism, i. e., as a marginal manifestation of the wish for expiation, and of outright masochism.

In contradistinction to this thesis, the writer believes that this type of criminal behavior reveals a pattern which is almost a minute, point by point, duplication of the process whereby the criminal, in childhood, managed to overcome his basic conflict by means of symptoms (criminality), which are ethically infinitely more vicious, and realistically far more dangerous to himself, than would have been an unbridled "acting out" of all fantasies connected with the basic conflict. E. g., many a criminal prefers to kill rather than to masturbate, or, like Hitler, plunges the world into a world war rather than be a passive, dependent homosexual, etc.

If these considerations are valid, then the term "*instinct*-ridden psychopath" is a misleading one; the correct designation would have to be "*defense*-ridden *psychopath.*" His career is the exact reverse (Or is it?) of de Quincey's ironical remark that once a man starts out with murder, there is no saying what he might stoop to: He might even end up as a petty thief, a drunk or a blasphemer. This *over-reaction* to every situation, the use of a cannon where a pen-knife would suffice, both in the means used to perform the criminal act, and in attempts to escape the penalties and other consequences of illegal activities, reveal, in drastically sharp contours, the real and distinctive *characterological* impairment of the habitual criminal and "criminal psychopath," whose major problem is no longer his initial basic conflict, but rather the constantly new set of secondary conflicts brought into being by his *excessive* defenses against his relatively mild initial conflicts. When viewed in this light, the habitual criminal is no longer an enviable "negative ego-ideal," acting out in unfettered freedom every one of his impulses. Rather does he appear as a caricature of the puritan and of the fanatic—he is, in an offensive way, a "*saint à la manque,*" or "*saint à rebours,*" who, like the criminal, has defenses which are so excessive, luxuriant, and obtrusive as

to conceal the minute conflict-acorn from which the mighty oak of his saintliness grew.

Hence, just as the figure of the saint has struck many as a tangible proof of the "divinely superhuman" in man, so the figure of the criminal has led to the conception of the "diabolically superhuman" in man. Hence, in some, not wholly unprejudiced, quarters, both the saint and the sinner were viewed as direct proofs of the inadequacy of psychoanalytic theory, which is concerned with the "merely" (?) human.

Conclusions

In the first approximation—and with special reference to illegal behavior—the difference between neurosis, perversion and habitual criminality is as follows:

1. In neurosis the core of the conflict is the struggle between the instincts and the forces of repression. Both isolated and recurrent neurotic criminal acts reflect a temporary failure of the defenses. The break-through of repressed material usually has a masochistic implication, in that it almost automatically elicits punishment and expiation, which placate the super-ego. The defenses may, or may not, be characterologically anchored, depending on whether we are dealing with a symptom-neurosis, or with a character-neurosis. Character-neuroses differ from habitual criminality in that in the former it is the impulse, and not the defense against it, which is "criminal."

2. In perversions the conflict is chiefly between pre-genital and genital instinctual needs, the former being used—sometimes fairly masochistically—as defenses against the latter. The pervert's "criminal" act is, thus, either a matter of social convention (i. e., as in homosexual relations between adults), or else, as in the case of neurotics, a result of the break-through of aggressive pre-genital impulses (lust-murders), or, finally, it is a highly ineffectual means whereby the pervert seeks to avoid the consequences of an illegal sex-act, e. g., when he tries to avoid punishment for rape or pedophilia by murdering the sex-object. Only the last type of perverted behavior bears any real resemblance to habitual criminality.

3. In habitual criminality the *socially relevant* conflict is a product of the need to maintain characterologically anchored, excessive and criminal defenses against various instinctual needs.

The habitual criminal's defenses against instinctual needs are criminal in nature, and, on the level of reality, create both for society and for the criminal problems far more severe than would result from the uninhibited acting out of his instinctual urges. Only in this respect does the criminal resemble the pervert who kills in order to conceal temporarily a far less objectionable sexual act. However, the pervert differs from the habitual criminal in that the latter's super-ego is structually modified, so as to permit the maintenance of criminal defenses against instinctual pressures. Predatory criminal behavior is made both ego-syntonic and super-ego-syntonic by the pretense that it is a sub-culturally sanctioned means of earning a living, i. e., that it serves the need for self-preservation. True and intense masochistic and self-punitive mechanisms are fairly rare in the habitual criminal.

The purpose of this paper was to differentiate between the neurotic "illegalist," whose symptomatic defenses sometimes fail him, and the criminal, whose defenses work overtime, and whose analysis and therapy must be focused, first and last, upon his characterologically-generalized and armored excessive defenses. The present study also seeks to explain the failure of "psychoanalytic" work conducted on non-characterological lines by mere "detectives of the unconscious," and to bring criminality within the scope of the universally human subject-matter of psychoanalysis. Last, but not least, it attempts to support theoretically the empirical view that neurosis, perversion and criminality are discrete phenomena.*

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*The writer wishes to express his appreciation for cogent discussions to the members of the Committee on Criminal Psychiatry, presided over by Dr. Joseph Satten, which was established at Winter V. A. Hospital by direction of Dr. J. F. Casey, manager. The writer is, however, solely responsible for the views expressed in this article.

A STUDY OF THE DEVELOPMENT AND COURSE OF SCHIZOPHRENIA IN CHILDREN

BY E. R. CLARDY, M. D.

As the problem of mental disorders in adults has expanded in alarming proportions, similar manifestations in children likewise are demanding corresponding attention; and in the field of child psychiatry, along with behavior disorders, an increasing amount of attention is being focused upon childhood schizophrenia. For instance, there was very little information in the literature concerning schizophrenic children until about 1929, when J. Kasanin and M. R. Kaufman[1] reported six cases; in 1933 Howard Potter[2] also reported six cases. From 1941 up to the present time case reports have been more common. Contributors include: Charles Bradley,[3] Louise Despert,[4] Lauretta Bender,[5] Frances Cottington,[6] E. R. Clardy, and Leon N. Goldensohn,[7] Leo Kanner,[8] and many others. It also may be mentioned that during the past year 11 children diagnosed as cases of childhood schizophrenia were admitted to the Rockland State Hospital Children's Group. This figure is a little over one-fourth of the total number of admissions (41) for the year. From 1936 to 1941, the average number of schizophrenic children admitted was approximately five a year.

Consequently, in relation to the seriousness of the problem, it is hoped that this study will contribute to a clearer understanding of the total picture of schizophrenia in childhood. The present writer has been fortunate in being able to study the development and change in symptoms as well as the course of the schizophrenic process in various age levels, ranging from three to 12 years, which are the Rockland (N. Y.) State Hospital Children's Group admission limits. In fact, he continually followed a number of cases, both in and out of the hospital, as long as 10 to 14 years.

It should be mentioned here that in the process of the study, careful physical and laboratory examinations including routine blood and urine tests were performed. Likewise, complete neurological examinations were made; electro-encephalograms were taken in 16 cases; pneumo-encephalograms in 10 cases; and Rorschach examinations made in 15 cases. Routine psychological tests were performed on all cases. Likewise, it should be mentioned that the psychiatric diagnoses were not made by one individual, but were confirmed by several competent psychiatrists.

Case Material Study

Number of cases		30
Girls		6
Boys		24
Ethnic group		
Mixed	13	
Hebrew	13	
Negro	4	

I. Q. range 80 to superior

It is interesting to note that the admission rate of boys over girls is approximately 5 to 1. The age range at the time of admission of the cases was three to 12 years.

Symptomatology

In studying the symptomatology of schizophrenic children admitted to the children's group during the past 14 years, the symptoms seemed to fall into three different groups, which are described here as follows:

Group 1. *Aged*: 8 *to* 12 *Years*

Group 1 is characterized by symptoms similar to those seen in adult schizophrenia; that is: *severe withdrawal, severe loss of contact, marked loss of affect, delusions and hallucinations.* Catatonic features were frequently encountered; also paranoid and hebephrenic. We noted that persecutory delusions were present in the majority of the cases in this group. Practically total mutism was a frequent symptom; also muttering, grimacing, bizarre behavior and mannerisms. These children have a marked narrowing of fields of interest, do not participate in play activities of other children, and are often found sitting alone on the floor in the corner of the room.

The general symptomatology of this group is very well pictured in one of the cases, that of Rita, an 11-year-old girl. Rita actively hallucinated, saying that she heard Italians talking about her and calling her names. When spoken to, she would say, "That is not my name, I am not Jewish, I am Mary Lucia." Rita was almost completely withdrawn, having no interest in the activities of the other children. She regressed to the state seen in the usual picture of adult schizophrenia. She drooled saliva, spitting on herself and at other children; likewise, she wet, soiled and played with feces. From the standpoint of affect, the girl's was similar to that seen in adult schizophrenics, her expression being inadequate, silly and mask-like.

Group 2: Aged: 3 to 11 Years

Group 2 is characterized by symptoms of *severe withdrawal and loss of contact; also loss of affect but no delusions or hallucinatory manifestations.* Patients were further characterized by *infantile reactions such as severe tantrums.*

Group 1

Number of cases—17

Age of onset	Name	Sex	In hospital	Follow-up	Condition
8	Geo. G.	male	2 years	2 years	unimproved
11	R. Mar.	male	2 years	4 years	much improved
11	J. Whi.	female	3 years	3 years	much improved
11	Geo. B.	male	2 years	4 years	unimproved
11	M. Pop.	male	3 years	14 years	unimproved
12	I. Rat.	male	2 years	2 years	improved
12	J. Sap.	male	1 year	0 years	improved
12	G. Haf.	male	6 years	1 year	improved
11	T. Dum.	male	2 years	1 year	improved
11	R. Hal.	female	3 years	3 years	much improved
10	I. Eis.	male	2 years	1 month	unimproved
11	D. Deu.	female	2 years	4 years	much improved
10	Lee N.	male	4 years	14 years	improved
10	R. Sch.	male	14 years	14 years (in hosp.)	unimproved
11	L. Kat.	male	12 years	12 years (in hosp.)	unimproved
12	W. Her.	male	14 years	12 years (in hosp.)	unimproved
12	J. Rog.	male	12 years	12 years (in hosp.)	unimproved

Age range	8-12 years
1	8 years old
3	10 years old
8	11 years old
5	12 years old

Condition

6—unimproved
7—improved
4—much improved

Percentage of Improvement

Improved	11—about 66 per cent
Unimproved	6—about 33 per cent

Tantrums were often the first symptom manifested. The youngest child in the group was a girl three and one-half years of age. In fact, this is the youngest child that the writer has seen showing schizophrenic manifestations.

These very young children continually whine, cry, cling to adults and cannot play with other children. They frequently bang their heads, beat themselves often inflicting severe injuries. They may rock or masturbate, continually wet and soil, and play with feces.

The field of speech is often affected in all forms of childhood schizophrenia. Patients cannot adequately express themselves. There is frequent dissociation, irrelevant, repetitive speech; neologisms and echolalia were occasionally observed. The voice is often monotonous and sing-song. Stereotyped manners and actions are frequent. Nearly all of the three groups showed anxiety and fear; apparently the whole schizophrenic process in children is based to a great extent on fear.

Group 2

Number of Cases—11

Age of onset	Name	Sex	In hospital	Follow-up	Condition
7	A. Al.	male	5 years	2 years	Improved
10	A. Cob.	male	2 years	5 years	much improved
8	Joan L.	female	2 years	7 years	much improved
9	C. Cest.	male	2 years	1 year	much improved
11	Don. M.	male	5 years	still in hospital	unimproved
3½	B. L.	female	2 years	still in hospital	improved
10	Jef. W.	male	2 years	still in hospital	unimproved
4	R. Fer.	male	2 years	still in hospital	much improved
7	Ted. Ch.	male	5 years	still in hospital	much improved
8	N. Rub.	male	2 years	still in hospital	much improved
10	L. Mer.	male	12 years	still in hospital	unimproved

Age range 3-11 years

Condition

3—unimproved
3—improved
5—much improved

Percentage of Improvement

Improved 8—about 55 per cent
Unimproved 3—about 33 per cent

This group included, as mentioned before, the majority of the younger children; however, there were three children 10 years of age and one 11 years.

Group 3: Ages 5 and 7 Years

Group 3 is characterized by *severe infantile reactions but shows only moderate loss of contact or affect and moderate withdrawal.* Such cases usually began somewhat similarly to those of Group 2; with severe tantrums, narrowing of fields of interest, fear, anxiety, inability to play with other children, seclusiveness, rather unusual fantasy, self-absorption and day-dreaming. As mentioned, this type of child does not show the loss of affect noted in the other groups. Also when out of contact these children can

be brought back rather easily. Furthermore, there is a considerable loss of attention and lack of alertness. The attention of such children can be gained with persistence and they seem to have a certain amount of normal reasoning.

Group 3

Number of cases—2

Age of onset	Name	Sex	In hospital	Follow-up	Condition
7	F. Dick.	male	10 years	still in hospital	unimproved
5	A. Sed.	female	4 years	still in hospital	much improved

Condition

1—unimproved
1—much improved

It can be seen that because of only two cases in Group 3, one cannot draw any inferences, although both cases required long courses in the hospital.

Although a number of psychiatrists have classified such cases as schizophrenia, the writer thinks it is questionable, although no doubt there is a general fixation on a lower infantile level in comparison to actual age and physical development.

Etiological Factors

In considering etiology, a study of indefinite length could be made on this item alone. One could make long studies concerning early years of infancy, attachment to parents and parental attitudes; type of feeding, breast or bottle, weaning and other developmental factors. Consequently, only those general observations which have become obvious will be considered, although the need for extensive research is indicated.

1. *Histories of Mental Illness*

In going over the histories and statistics, the writer was struck by the unusual numbers of members of immediate families presenting psychotic manifestations or maladjustment, serious enough to require psychiatric attention. For instance, in six cases parents were psychotic; in two cases grandparents were psychotic. In addition, 12 cases had histories of a mother or father being seriously maladjusted. In other words, a total of 20 cases might be considered as having severe hereditary factors; that is mental illness in the immediate family. On the other hand, the environmental contact with such unstable parents no doubt had unusual influence on these children.

2. *Overpossessive, Anxious, Domineering Parents*

Likewise, it came to light that a comparatively large number of these children had *overpossessive, anxious, domineering mothers* —12 cases; anxious, overprotective fathers—three cases; over-protective, overpossessive father and mother—two cases. In other words, 17 cases showed this type of parent.

3. *Rejection*

There was a history of rejection by the mother in three cases; by the father in four cases; and by both parents in eight cases. Seven cases had histories of foster home placements.

4. *Physical Factors*

The general physical examinations were essentially negative in almost all cases; neurological examinations did not reveal much abnormality. However, it was noted that four cases showed abnormal physical make-up such as the Fröhlich syndrome, dysplastic body build, or undescended testes.

On the other hand, 13 children had abnormal EEG's, such as random slow waves of relatively high amplitude, dysrhythmia from bilateral homologous regions; also disorganized appearance with slow and fast waves mixed. Alpha rhythm was generally irregular. Although such EEG's are called abnormal, they are not generally specific; such waves are found in children with primary behavior disorders and in schizophrenia.

Pneumo-encephalographs were performed in 10 cases, seven of which showed some abnormality, such as dilated ventricles or cortical atrophy.

Out of 13 Rorschachs, 11 showed definite preponderance of schizophrenic findings. Only two gave organic findings.

5. *Sibling Rivalry*

Sibling rivalry appeared to be a prominent factor in five cases.

Progress and Treatment

It seems that prophylactic treatment should first be considered; that is, recognition of severe personality deviation in the development of the child in infancy and early childhood. For instance, there are such symptoms as continual, uncontrollable tantrums;

nonsensical behavior; muteness; stilted, stereotyped behavior; mechanical, repetitious speech and action; also extreme seclusiveness and inability to play with or get along with other children. When this real schizophrenic process is recognized, one should then search for causative factors which might be controlled to some extent, such as the influence of anxious, overpossessive, domineering, overprotective or rejecting parents, or severe sibling rivalry. Instead of keeping the child indoors all the time with an oversupervising mother he could be placed in nursery schools, or in situations on the playground in healthy play with other children.

In institutional treatment of children, the writer has worked under one specific difficulty; that is, the schizophrenia has usually advanced to late stages, possibly because it had not been recognized; or the parents were told that the child would outgrow the condition; or they feared the "old scarecrow," *stigma.* In treatment at the children's group, the first step has been to make the child feel accepted and wanted, to eliminate fear of punishing-adults who represent parents. To accomplish this, it has been necessary to have a psychiatrically-oriented staff with special understanding of child psychiatry; and to place the child in a co-ordinated, supervised total treatment situation. The cottage attendants, the kitchen, the school, the psychologists, the O. T. worker, the social worker, the nurses, the psychiatrists and all departments are closely knit into one unit and schedule of therapy for the child. Everyone is made to realize that he or she is a therapist. The therapeutic approach is mainly that of a play technique. The therapy, especially in young children, is usually set in a play situation. Rarely can a child be worked with in a direct interview, except in the older years of childhood; usually children will block under direct questioning.

After a child begins to realize that he is accepted by the various therapists and realizes that he will not be punished, he begins to turn his aggressions outward for the first time. The first sign of improvement may be manifested by aggressive, overt behavior such as fighting or destructiveness. Sometimes this sign of improvement in a child, who is almost completely withdrawn and out of contact, may be manifested by his first play with clay material in the art therapy room. As he learns that his play will not produce punishment, fear and anxiety subside and he begins to take pleasure in constructive accomplishments. Gradually this re-

socializing is brought about by understanding, accepting teachers and other therapists. Likewise, the child's progress may be continued at the same time by individual play therapy.

The writer has had considerable experience with children who have received shock therapy before admission to the children's group, and also has himself given insulin or electric shock in a few cases. In the 10 cases that received electric shock therapy (at least a series of 20 treatments) practically all the children became worse, after sometimes having a history of initial improvement in the beginning. After this initial improvement they relapsed and consequently were admitted to the children's group. Electric shock therapy had been given to children as young as four years of age. Some of them never showed initial improvement, but were made much worse. The writer noted that such young children were thrown into a severe stage of fright or panic. One little boy, seven years of age, stated, "It was awful, they tried to electrocute me." Furthermore, it was noted that these children did not improve until after a year or more of residence in the children's group, where their fears and anxieties had subsided and they felt secure and accepted, realizing they no longer needed to fear punishment.

It has been the writer's practice to give shock therapy as a last resort, and when all other measures have failed and the child appears to be at a standstill or deteriorating. There is little knowledge of the damage shock therapy will do to the brain cells of a developing child and of the effect it will have on the developing personality or brain function in later years. It seems illogical to frighten a child with a form of severe punishing treatment, who is already terrorized to the extent of partial withdrawal from reality. In the seven cases given insulin shock therapy, not an instance of any improvement was noted. In fact, all have regressed to an adult form of schizophrenia.

It was found of unusual interest to note that even after children had been in the group for as long as three years without much improvement, they were not hopeless and later showed considerable improvement. For instance, one boy, admitted at the age of seven and unusually interesting because of his high intelligence (I. Q. 175), did not improve until after three years, before which time he was very withdrawn, seclusive, mute and extremely introverted. Now at 13, he has shown a surprising improvement. He plays well

in games with other children, is interested in making progress in his school activities, and is beginning to show a more normal affect and expression.

On comparing the results obtained in the cases observed in this study, one finds that in Group 1, a total of 66 per cent definitely improved. In Group 2, children of a younger age level, there was practically the same rate of improvement. In Group 3, study has not been completed, and there are not enough cases to make any estimation; but, according to general observations, such children have shown a similar rate of improvement. In a number of cases, the course has been followed outside the hospital until they have reached fairly well-advanced years. Three boys, now about 25 years of age, are working and appear to have fairly normal personality make-ups. They are making good general adjustments.

Conclusion

From the foregoing considerations, it seems to the writer that schizophrenia in children is not so hopeless as previously thought. Bradley[3] covered the literature on schizophrenia in children and reported that the prognosis appears to be uniformly bad; likewise, Potter and Klein[9] reported bad prognosis from their studies. Kasanin and Kaufman,[1] in discussing their cases, considered the prognosis as "ominous."

On the other hand, it appears evident from the writer's observations that schizophrenia in childhood occurs more frequently than previously realized. The number of cases admitted to the children's group alone supports this contention. The writer could not definitely say that there is an actual increase in the occurrence of the disease, but certainly the condition is now more frequently diagnosed and reported in the literature than formerly.

The possibility of heredity as an etiological factor cannot be treated lightly, inasmuch as the family histories of the present cases gave a rather high percentage of unusual evidence of psychopathology, although this is something of a generalization, since only a few cases were studied.

On the other hand, the effect of environmental factors on the child's early personality integration, *especially parental attitudes as evidenced by the overpossessive, oversupervising, anxious, domineering mother appeared to be an unusually prominent etiological factor in producing schizophrenia in childhood.* Likewise, there

was some evidence of rejection and sibling rivalry being contributory factors in the etiology of the disorder.

Neither can the physical make-up and organic findings be neglected in considering the etiology.[10]

In fact, one can see that the whole problem of childhood schizophrenia is enormous and is in need of more detailed study and further research.

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A PRELIMINARY REPORT ON ANTABUSE THERAPY FOR ALCOHOLISM*

BY PHILIP P. STECKLER, M. D., AND LEBERT HARRIS, M. D.

Various substances have been found to sensitize the human organism to alcohol. In 1914, Koelsch is reported to have described[1] the effect of poisoning with cyanamide in laborers working with this chemical. He described transitory redness of the face, headache, accelerated deep respiration, accelerated pulse and a feeling of giddiness. These attacks were seen only after alcoholic intake and lasted from one-half hour to two hours. Fischer in 1945 reported that ingestion of the fungus, Coprinus atramentarius, in combination with alcohol, gave rise to similar symptoms.

Hald and Jacobsen discovered a third substance producing a similar reaction, tetraethylthiuramdisulfide, which is distributed under the trade name of antabuse. The clinical investigation of it was made by Martinsen-Larsen[2] in 1947. The use of antabuse in the treatment of alcoholics was introduced by Drs. Jacobsen and Hald. They discovered that tetraethylthiuramdisulfide, originally manufactured in tablets as a drug which should be effective against worms in the intestines, established a hypersensitivity to alcohol.

Investigation of this phenomenon revealed that although acetaldehyde is present in the blood of normal human subjects after ingestion of alcohol, those who had previously been sensitized with antabuse showed higher acetaldehyde levels.

Asmusen, Hald and Larsen[3] reported experiments with administration of acetaldehyde in man which show that concentrations of acetaldehyde corresponding to those found in sensitized patients after ingestion of alcohol, produced not only similar effects on ventilation and circulation, but also a dilatory effort on the facial vessels, giving the same flushing as seen after antabuse and alcohol. They concluded that there were strong indications that some of the symptoms observed after antabuse and alcohol could be explained as a result of increased formation of acetaldehyde.

Antabuse has been used extensively in the Scandinavian countries for control of alcoholic habits, and published reports by vari-

*Read at the Upstate Interhospital Conference of the New York State Department of Mental Hygiene, at Syracuse, April 18, 1950.

ous authors contain statements such as: "It seems, therefore, very improbable that alcohol intake after antabuse could result in dangerous concentration of acetaldehyde in the blood."[3] "A series of alcoholics were treated with daily doses of this drug and the results of the first fifty cases observed for more than six months. No untoward by-effects were observed."[4] The writers' preliminary investigation, however, indicates the need for caution, as reactions have been severe and have in one case resulted in death.

The first series of five cases selected at Syracuse Psychopathic Hospital were from among the chronic alcoholics admitted because of psychotic episodes. After they had recovered from their psychoses, they were put through clinical and laboratory studies including liver function, EEG, EKG, BMR, CBC and kidney function tests. If there were no contraindications, they then received courses of antabuse followed by test doses of alcohol. Psychotherapy was instituted at the start of the clinical investigation. Three of the five cases are reported in detail here.

Method

The patients received 1½ grs. of antabuse (three tablets) daily and, on the fourth day of treatment, a test dose of alcohol. In the first series of cases, the test dose consisted of a choice of beverage: beer, wine or whisky according to individual drinking habits. The amounts were varied but equaled approximately 2 oz. of whisky in alcoholic content. After the death of one of the patients, the initial dose was reduced to the equivalent of 1 oz. (30 cc.) of whisky. In the second series, the initial dose was limited to 15 to 20 cc. of whisky.

Illustrative Cases

Case 1. A. E. S., aged 49, born in Syracuse, was the second of three siblings. She completed high school at the age of 18 and business school at 19. This woman adjusted well in mixed company and, when she left school, worked for a short time in a wholesale house. Later she worked as a secretary for 11 years. She then was without work for a considerable period of time and began to drink to excess. About 1937, she obtained work at the Revere Copper and Brass Company and was there for five years, but lost considerable time from work. Her employment record became worse; and after 1941 her work was very poor.

At the age of 11 or 12, A. E. S. had suffered a concussion in an auto accident and for many years was considered moody. Her sister felt the patient had to be "catered to" in order to keep her good-natured, as she had a "mean disposition." The patient started drinking socially when in her 20's and became a problem in management even at that time, never being able to handle money or use good judgment. Her alcoholism interfered with anything she attempted to do.

Her first period of hospitalization was at Syracuse Psychopathic Hospital from July 19, 1944 to August 17, 1944, and she was later hospitalized at Marcy, at Brigham Hall and again at Syracuse Psychopathic Hospital prior to her last admission. On admission to Syracuse Psychopathic, July 11, 1949 on voluntary application, she was tremulous but did not show the effects of acute alcoholism. Clinical studies and physical examination revealed no contraindications to antabuse therapy, and, beginning July 25, 1949 she received three tablets of antabuse on three successive days. On the fourth day at 3:30 p. m., she was given 45 cc. of wine. At that time, she was extremely tense, agitated and apprehensive over the test dose of alcohol; her blood pressure was 215/140. After a 10-minute wait, this dropped to 140/98 and she was then given the wine. In eight minutes, a generalized flush appeared, and she complained of ringing in her ears; two minutes later, she began to complain of blurring of vision. Within 15 minutes, however, her vision became clear, and tinnitus was no longer present. After 16 minutes, she became nauseated, complained of weakness and malaise, and her speech became slurred. During this period, the blood pressure dropped from 140/98 to 40/0. She was deemed to be *in extremis* and was given 20 cc. of 50 per cent glucose and 20 units of regular insulin intravenously. Her response was rapid, and the blood pressure began to climb steadily to 140/100. One hour after administration of the alcohol, she continued to be nauseated and had an emesis of about one ounce of thin brown fluid. She complained of nausea during the night but retained a small meal of milk and crackers and stated that she felt considerably better and had had a good night's rest.

The following morning she complained of slight headache and some nausea. At 9:30 that morning 1/150 gr. of atropine was administered. During the rest of the day she appeared considerably improved. She went to sleep at 12:30 a. m. and was checked by

an attendant every half-hour until 2:45 when she was found to be sleeping quietly. At 3:30 a. m., she was found to be apneic, her pulse could not be palpated, and she was pronounced dead at 3:40. The blood acetaldehyde level, taken at the height of reaction, was 0.735 mg. per cent and an EKG taken at the same time was not abnormal. A postmortem was not obtained because of the family's objection.

Case 2. M. M., a 51-year-old man, was admitted to Syracuse Psychopathic Hospital for the fourth time June 26, 1949. He was tremulous, had visual hallucinations and showed all the signs and symptoms of delirium tremens. He had been at this hospital on three previous occasions and had been diagnosed similarly. Sixteen days after admission, he had recovered from his psychosis, his eating and sleeping habits were good, and he had gained weight. He was given three tablets of antabuse daily, and, on the fourth day of medication, was given a test dose of 50 cc. of whisky. His blood pressure at the start of the test was 140/80 and never went below 120/80. He was nauseated, perspired freely, complained of frontal headache, became pale and remained nauseated most of the day. The following day he felt better and was up and around.

He was placed on ¾ gr. antabuse daily for three days and was then given another test dose of alcohol consisting of 30 cc. of whisky. His blood pressure at the start was 160/104 and fell to 122/88. He showed nausea, vomiting and a marked erythematous reaction almost immediately and complained of headache. The following day he felt well and was up and around. He was given a third test dose of alcohol consisting of 30 cc. of whisky and had a reaction similar to the previous one. He recovered rapidly from this reaction. Acetaldehyde levels were 0.40 mg. per cent on the first dose, 0.49 mg. per cent on the second dose and 0.25 mg. per cent on the third dose. The EKG before antabuse therapy showed an apparently anomalous atrioventricular conduction with the usual precordial lead patterns. The second EKG at the height of the first reaction showed some differences, apparently indicating myocardial damage. In view of the EKG findings, this man was not continued on antabuse therapy after discharge from the hospital, as a severe reaction could have produced a dangerous cardiac condition.

Case 3. C. C., aged 41, was admitted August 2, 1949. He was a well-developed, well-nourished man whose father was a chronic alcoholic and who would drink with his son. He finished high school but made a poor industrial adjustment. He was admitted to St. Lawrence State Hospital because of alcoholism in 1935. He was considered shy and quiet. He was a periodic drinker but usually drank moderately between attacks. Four months prior to admission he had been drinking alcohol to excess and consumed as much as two quarts of liquor a day. Following a three-day course of antabuse, he received his first test dose of alcohol September 9, 1949. He showed mild erythema, his blood pressure fell from 130/98 to 116/74 but he showed no other untoward reactions.

He was continued on three tablets of antabuse daily and was given a second test dose of 30 cc. of whisky September 13, 1949. At that time, he showed flushing of the face and chest, and complained of blurring of the eyes; his pulse was somewhat irregular but strong, and he complained of drowsiness. Blood pressure fell from 138/90 to 118/76. On September 22, 1949, he had his third test dose, 20 cc. of whisky, and reacted as on the previous tests. His blood pressure fell from 138/90 to 116/72. He seemed well the next day and was apparently well up until the time of discharge from the hospital. An electrocardiogram on August 19, 1949 was within normal limits; the EKG of September 9 showed a slight reverse of T waves but was considered normal; that of September 22 showed T wave changes suggestive of coronary insufficiency or early myocardial damage. A repeat-tracing 24 hours later showed the T wave changes more in evidence. Because of these changes in the EKG's, further therapy was discontinued. The acetaldehyde level was 0.06 on the first test, 0.131 on the second and 0.201 on the third.

* * *

The cases cited show some of the complications which occurred during the first series of cases. The writers had one death, one case of myocardial damage and one case in which the EKG showed evidence of a heart condition which contraindicated extramural treatment. It was noted that even low levels of acetaldehyde, as demonstrated in the third case, still were associated with myocardial damage. Because of these reactions, further investigation was halted until such time as some antidote to acetaldehyde

was found, as, once the reaction started, there seemed to be no way to lessen its effects.

On January 8, 1950 a communication was received from Ayerst, McKenna and Harrison, Ltd., reporting that vitamin C in dosages of 1,000 mg. by mouth or in 10 cc. of a suitable solvent, injected intravenously at the height of the reaction, could be valuable in controlling the severity of reaction to alcohol in antabuse-treated patients. The writers then started a second series of patients. In this series the same clinical tests as before were used before treatment, but 15 to 20 cc. of whisky were used as an initial dose, which was increased to 30 cc. on the second test. At present, this appears to be a safer method than the original one, as—aside from the death reported—it was noted that even 30 cc. of whisky was sufficient to produce moderately severe reactions in two of the original patients.

Summary

In a series of five patients severe untoward effects were noted in two patients, including one death which the writers attributed to the antabuse-alcohol combination. These tests indicate caution in the use of antabuse. A second series of clinical trials indicates that small initial doses of alcohol are safer and can produce adequate reactions.

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PAIN

BY JOSEF MATFUS, M. D.

Pain is an important psychosomatic symptom which, it is known, may have a definite bearing on all functions of the organism. This fact was realized by Spinoza, who wrote that "pain is an emotion whereby the body's power of activity is diminished or checked." Scientifically, the significance of pain in this respect has been demonstrated by Canon's observations on the effect of pain (unpleasant emotions) on the digestion; by Gold's studies of the effect of pain on the heart; and by George Wolff's[1] studies on the effects of pain on the kidney. Those observations are very impressive because of the correlation of somatic disorders in an individual, while he is subject to pain. Emotional states of a pleasant character, on the other hand, seem to have a favorable influence on the somatic functions of animals and men. Studies by Pavlov, Hornberg and others have proved experimentally the favorable reactions of pleasant emotions on the digestion of animals and men.

Pain is the earliest of our developed senses, it is probably a danger signal. Animals of the primitive classes—like worms, vertebrate-like fish or bees seem not to possess pain sensation according to the experimental studies of Norman[2] conducted in 1900. The cutting of those animals did not elicit any reactions or movement greater than those caused by slight ordinary stimuli. He concluded that pain sensation is only observed in animals of a higher form. In fact, it is reported that only in mammals is this reaction developed to its highest degree.

Pain is a unique sensation, as it can be elicited by different stimuli: mechanical, electrical, thermal and chemical. Roughly two varieties of pain are recognized; the superficial and the deep. The main difference between those two pains is that the superficial is well localized, the deep poorly localized; the superficial is accompanied by the fight-flight reaction, the deep by the withdrawal reaction. The pain reactions, and by them the pain itself, seem to have importance for the life instinct especially in mammals.

One often can observe for instance that a dog who has been hurt, and is suffering a superficial pain, will automatically show his teeth, a fight reaction; or he will run away, a flight reaction. How-

ever, when overwhelmed by a deep pain, the pain of labor for instance, a bitch will withdraw into a corner in order not to be interfered with.

Today it is universally accepted that pain is a sensation like smell, touch, taste, sight and hearing. In ancient times, it was Aristotle who named as senses: smell, taste, sight, hearing and touch. Plato accepted the same senses and considered pain and pleasure, not as a sense, but as "passion of the soul." This classification of pain is justified, if one identifies pain with unpleasantness; it transcends the sensory field and extends to other experiences of life. Kant comes nearest to the current view; he mentions a *"sensus vagus"* comprising reactions of heat, cold, thrill, hunger, thirst and pain, which Nolan Lewis calls the kinesthetic and visceral sense. Schopenhauer, using his introspective method of deduction, defines pain as "positive," pleasure as "negative" experiences. Pleasures are due to the absence of pain; and the intensity of the one experience is often in proportion to the other which preceded it.

Pain is an unpleasant perception, a perception which causes reactions in our vegetative nervous systems. An accurate definition of pain or description of pain is no more possible than of color—except when comparatively expressed as—in the instance of color—sky blue, blood red or orange. The quality of pain may similarly be described with illustrations of well-known experiences, like "burning or prickling." Sir Thomas Lewis[3] in the preface to his book, *Pain,* explains that there can be no accurate definition of pain because the knowledge of pain is derived from experiments with animals. There is no reliable indication of pain in those experiments—only of phenomena which frequently are associated with pain, like raised blood pressure, dilatation of pupils, sweating, cries, etc. Most of those phenomena are spinal cord reflexes which may happen without pain and some of them may be quite independent of pain. Cries and struggling are not at all necessary criteria of pain; they are observed, for instance, in apprehension—without pain at all. Behan[4] assumes that the observed motor responses to an irritant are not always indicative of pain; they may be a reaction to stimuli which are not necessarily of a sensory character—possibly mechanical stimuli, such as vibrations causing different sensations according to the sense organs they are applied to.

Wolff and Hardy[5] summarize the nature of pain as follows: "Until the end of the 19th century pain was considered to be exclusively a feeling state. Later as the interest was focused on the perceptual aspects of pain it became clear that pain is a specific sensation connected with reaction patterns which may become dominant in the experience.

"This reaction to pain may be modified by conditioning experiences and strong belief. The analgesics raise not only the pain threshold but they change also reactions and feelings.

"Thus the recent evidence supports the old view that the 'quale' or feeling state is to the one who suffers the most relevant aspect of pain. Yet it supports as well the conclusion that pain is a specific sensation with its own structural and functional properties. These two concepts represent an attempt to formulate distinct but fundamental aspects of the pain experience."

The exact mechanism of pain is not yet known. Timme[6] compares the mechanism of pain to the mechanism of the physiologic experiment of a nerve-muscle preparation, in which, when a galvanic current is started, an initial contraction occurs. During the whole time of the passage of the current no further contraction occurs, but when the passage of the current is broken a second contraction occurs. A similar experience is observed with a sharp pin pushed deep enough into the skin. Pain is immediately felt. But while the pin is kept in position pain ceases, only to reappear when the pin is removed. The pain mechanism is in his opinion an electrophysical mechanism induced by the tremendous difference in (electro-) potentials between the painfully stimulated point in the skin and the surrounding area.

Another explanation for the mechanism of pain—referred pain—is given by Sir Thomas Lewis. He attributes the sensation of pain in the referred area to local production of a chemical substance which raises the excitability of the terminals of pain nerves. He assumes that the chemical substance which he calls the "P" substance is produced locally by a sympathetic reflex. This substance produces the pain. A local injection of normal saline abolishes it.

MacKenzie has a somewhat different theory for referred pain which he calls "heterotopic." He thinks that afferent impulses from the viscera produce an irritable focus in the spinal cord, and this focus is in some way responsible for the transformation of the ordinary impulses in cerebrospinal nerves.

The histological anatomical knowledge of the pain receptors was achieved by the meticulous experiments of the pioneers of this science—to name only a few of them, Waterston, Wedell and Zottermann. Waterston[7] experimented on his own skin. Wedell removed from a patient and examined histologically a piece of skin from an area involved by a local lesion which had caused a loss of all sensation but pain. Zottermann made recordings of action potentials of different nerve fibers. (These experiments will be referred to subsequently.) Those studies and many others not mentioned established the present view that pain receptors, present in the skin throughout the body, within and beneath the epidermis consist of a plexiform nerve fiber arrangement with free terminals, fiber, cell body and central process. The individual nerve fibers in the terminal distribution of this pain-receptive unit never anastomose. Every part of the skin is multiply innervated by separate neurons, accomplished by overlapping of adjacent fibers to any point in the skin. Some neurons approach their territory from various directions, at times recurrently. This anatomical finding explains the clinical observation, that small skin incisions do not denervate an area.

According to Tower's conclusive studies[8] the pain receptor unit is not a spot innervated by a particular nerve fiber, but an area of terminal distribution of a unit neuron of variable extent which can be measured in square millimeters or centimeters. This terminal, together with its fiber, cell body and central process constitutes a neurosensory unit of a peripheral sensory receptive mechanism for pain. The pain-receptive mechanism in deep somatic tissue and viscera is still not recognized exactly.

It is assumed that the skin pain receptors have two innervations. One set of pain fibers carries the impulses very rapidly, another set of fibers shows a very slow conductivity of pain. Observation of the so-called double pain elicited by a single stimulus like a pin prick deep enough into the skin, and observation that the farther distal the pain is elicited, the longer is the interval between the two pains, has been the proof for the two different innervations, the rapid and the slow. The rapid fibers are situated in the epidermis beneath the cells and intercellularly. They are myelinated fibers and of greater caliber than the mostly unmyelinated and more deeply-situated slow fibers. The difference in the velocity of the two sets—the first one, assumed to be of an epicritic charac-

ter the second of a protopathic, enables the first sensation to reach the brain before the second enters the spine. Gasser[9] explains the reason for the difference in the velocity of the two sets as caused by the need for the autonomic nervous system to determine the possible neuron chains for effectuating appropriate reactions to control the position of the parts of the body in space, so that these parts will be ready for the finer reactions determined by the detailed information mediated by fibers of slow conduction, as for example those of touch and pain.

Zottermann[10] conducted his investigations by recording the action potentials of different nerve fibers. Those records were made by means of an amplifier and oscillograph. The electrical response was led to a loudspeaker, different sounds were elicited when the different fibers, the myelinated and the unmyelinated were stimulated. The differences in sound were caused by the more or less rapid changes in potential. These investigations supplied conclusive evidence that there are two innervations.

The different nerve fibers are classified on the basis of their physiological manifestations. They are named A-fibers, B-fibers and C-fibers. The A- and B-fibers are mostly myelinated and of larger size. The A-fibers are in the skin, the B- in the viscera. The C-fibers are much smaller, mostly unmyelinated and show quite different properties than the A- and B-fibers in their action potential—their resistance to asphyxia and to the action of cocaine, locally administered. The A- and B-fibers, it has been found, have a rapid action potential, the C- a very slow one. In nerve asphyxia, the A- and B-fibers are the first to be blocked, the C-fibers survive longest. In a cocaine block of a peripheral nerve, the C-fibers become blocked very early, and the others much later. The A-, B- and C-fibers are generally assumed to be the pain-receptive fibers. The A-fibers in the skin also carry other afferent impulses, according to their end organs: impulses of touch, cold and warmth. The C-fibers carry only pain impulses.

The question of whether pain induced with thermic stimuli is carried by the same nerve fibers which carry thermic stimuli, changing from a thermic to a pain sensation only through increasing the strength of the stimulus to the pain threshold, or whether different nerve sets carry the two different sensations, has been only recently decided in favor of carrying by two different nerve sets.

The fact that there are different reactions to asphyxia and local anesthesia on the part of the exclusively pain-carrying C-fibers, and on the part of the fibers which carry both pain and thermal stimuli, indicates the presence of two different nerve sets for the two different sensations. It may be of interest to mention that this view had already been expressed in the eighteenth century by Erasmus Darwin. He reported observing a patient who had been paralyzed in the lower extremities, and from whom he could not elicit any pain sensation by mechanical stimulation on his foot, although thermal stimuli were correctly appreciated. In his report he concludes that nature has provided human beings with two different sets of nerves, for the two different sensations. Head[9] produced on his own wrist, by section of a cutaneous nerve, an area insensible for pain, but thermal sensations for hot and cold remained fully preserved. This observation also affords evidence of two different nerve sets for the two different sensations.

Pain elicited by cold, due to local cooling, has been studied experimentally by Wolf and Hardy.[11] Their observations culminated in the following findings: When local cooling was applied to any part of the body at a slightly lower degree than 18°C., deep aching occurred in about 60 seconds and then promptly ceased. At lower temperatures the pain occurred earlier, was more intense and of an aching character. After 60 seconds the height of pain was reached, followed by amelioration and cessation of pain. The latter phenomena, they call "adaptation." Observed pain "reactions" included rapid, irregular respiration; the subjects became restless, and their facial expressions showed suffering. Another observation recorded by the authors was, that cooling a part of the body with a temperature below 12°C. caused a sensation of "pins and needles," occurring after the peak of the aching pain occurred; a sensation which steadily increased in intensity as the aching pain decreased. Still another observation was made, that if an immersed hand were withdrawn from the cooling water in less than 60 seconds—before the pain reached maximum intensity —a second extra pain was felt momentarily. When the hand was withdrawn before adaptation occurred, and was re-immersed, a pain of the same intensity recurred as with the original immersion. However, when the hand was withdrawn after adaptation occurred, re-immersion of the hand did not produce any pain.

Wolf and Hardy's experimental observations established also that the "cold pain" fails to show spatial summation. Immersing one finger in cooling water of a temperature below 18°C. elicited a pain equal to the pain when the whole hand had been immersed. These studies established still another very interesting phenomenon. It was found possible to lower the temperature of the cooling water to 0°C. without causing any pain to the immersed hand, if the cooling were carried out very slowly. In their experiments the changes in the vascular system were carefully observed and reported. Their observations established that the sudden rise in blood pressure due to "cold pain," coincided with the onset of pain, reached the maximum at the point of maximum pain, and, with pain adaptation, returned to normal.

The pain receptor mechanism of the viscera has been also studied and it is presently assumed, that the receptive mechanism is very like the superficial. Its fibers are those of Class B—visceral pain is described as having, as a rule, two components: a dull, heavy, wearing pain which is poorly localized and a superficial sharp stabbing, the so-called referred pain, of segmental arrangement, corresponding to the spinal segment of the viscus concerned.

The superficial and deep pains have threshold levels. The pain threshold is the minimum amount of the specific stimulation which in a limited time results in perception of pain. Experiments for the study of pain threshold were made by Hardy, Wolff[12] and coworkers for superficial pains with the light from a 1,000-watt lamp, focused by a condensing lens on a blackened forehead to assure total absorption of the radiation. An automatic shutter to allow radiation for an exact time (three seconds) was mounted in front of the apparatus.

Another instrument to measure superficial pain was devised by Timme.[6] It is a micrometer screw with a needle, which descends to depths that depend upon how many degrees the screw is rotated. This screw pushes the needle into the skin, the procedure being controlled by a stop watch.

Studies for the threshold of deep pain have been conducted with muscle ischemia produced by a sphygmomanometer and bowel distension.

The findings of those experiments have been registered by verbal reports of the subjects and by simultaneous careful observa-

tions of the reactions like muscle twitching, sweat, secretion, etc.

Experiments to determine the threshold level for pain were conducted in a large group of persons, male and female, from the age of 10 up to 80, and they showed the same level—with a maximum error of 15 per cent in the group and 5 per cent in single individuals. Those experiments were made with the same subjects in short and in very long sessions, under different emotional states and states of fatigue and at different times of day. (However, it was required that each subject maintain "a detached attitude" toward the experiment.) Always, under any circumstances, the pain started at nearly the same threshold level, with a very slight variation due to the so-called "adaptation" which occurs after a long continuation of painful stimulation of an area. Pain reactions, however, caused by pain stimuli of a certain threshold level, when repeated several times, diminish quickly and soon become lost; the explanation for the nearly unchanging pain threshold and the quickly raised threshold of alarm reactions is in the different physiological properties of the nerve fiber and the reflex arc.

While nerve fibers are practically indefatigable, reflex conductions are very much susceptible to fatigue and oxygen lack. The pain is carried by direct nerve fibers—the pain reactions by the reflex arc.

Recent studies (Hardy and co-workers[12]) have disclosed that the threshold for pain depends solely upon the strength of the stimulus and is independent of the amount of area exposed. The threshold for heat, however, becomes lowered at a given stimulus strength, by increasing the exposed area. (It may be remarked "that the same is true for the threshold of the alarm reaction for both heat and pain sensation.")

This fact, the absence of so-called spatial summation in pain, has been proved by the experiments of Hardy and Wolff. They administered morphine to their subjects in whom the threshold for pain and heat for an area of 0.3 sq. cm. and 0.5 sq. cm. had been established before the morphine administration. The changes in the threshold in those two areas for the two sensations were tested for the duration of the morphine action. The results confirmed a spatial summation for heat, but not for pain. For a better understanding of the importance of this phenomenon for the animal it must be stated that the threshold stimulus for pain is in the strength of 10^3 of the threshold for heat. A double strength of the

pain threshold causes destruction of tissue.[12] The heat stimulus consequently must be applied at a double 10^3 strength to cause a similar lesion in the animal.

Experiments on pain threshold in deep structures and in the viscera brought about nearly the same results, as reported for superficial pain.

For deep pain the experiments have been made, as mentioned, with muscle ischemia using a sphygmomanometer, for pain in the gastro-intestinal tract with balloon distension and simultaneous fluoroscopic control of the distended part. Another interesting approach to this problem is a study by Robertson and co-workers.[13] They studied the threshold for pain experimentally in teeth. They used a high frequency current, according to the method of pulp testing devised by Ziskin.[14] A single electrode is applied to the tooth. The smallest voltage which will barely elicit a painful sensation was recorded as the threshold. It was observed that a uniformity of threshold was obtained only when a certain point in a certain tooth was stimulated, the thresholds of different teeth in the same subject or of the same teeth in different subjects were different. These differences resulted very probably from the different thicknesses of the enamel in different parts of the same and different teeth.

Chapman and co-workers[15] published their findings on the pain threshold level in psychoneurotic patients. Their studies on 50 psychoneurotics of the threshold of perception of pain, compared with a series of 56 normal subjects, revealed that the values were essentially the same for both. However, the threshold level for the motor reaction to pain was significantly greater for the control subjects. The psychoneurotics tend to show greater motor reactivity to painful stimuli. Other very significant and important studies about pain intensity have been published recently by Wolff, Hardy and Godell.[16, 17]

Their investigation now allows us to define pain intensity quantitatively; formerly pain intensity could have been defined only qualitatively, with rather inaccurate descriptive phrases. Besides, they have observed discriminate intensities of pain and a ceiling for pain. They have proposed a scale of pain intensity, the unit of which is called a "dol." The "dol" as a unit of painfulness can be defined as the sum of two j.n. (just noticeable) differences in

pain sensations, or as approximately one-tenth of the intensity of the pain ceiling (21 dols).

Factors which alter the pain threshold level are neurological, pharmacological and psychological. All of them raise the threshold, none of them have been observed to lower it. All are the adequate tools with which the practitioner may combat pain. Cutting through the nerve fibers abolishes pain; a slight injury to the nerve trunk, like pressure on the trunk, will change the quality of the pain to a numbing sensation, but not affect the threshold. A severe injury to the nerve will raise the threshold and modify the quality of pain.

Bender published[18] studies of a group of patients with cutaneous disturbances due to lesions at different levels of the nervous system; subjects with gunshot wounds in the brain, spinal injuries, nerve, root and peripheral nerve lesions (the latter, causing a condition of causalgia) were studied. Bender found in brain lesions various stages and degrees of transient raising of the sensory threshold. Sensory dulling and extinction phenomena have been observed. The dulling and extinction phenomena have been elicited when two stimuli on the two sides of the body have been simultaneously applied. The stimulus on the unaffected side had to be of at least the same threshold strength as on the affected. In lesions of the spinal cord, with the Brown-Séquard syndrome, only a partial extinction and dulling could be occasionally observed; and, in the peripheral nerve injuries, in causalgias, no extinction, but a phenomenon called by Wechsler[19] "synestesialgia" could be elicited. In this phenomenon, stimulation of the healthy symmetrical side caused precipitation or aggravation of pain in the causalgic region; and stimulation of the affected side caused pain in the normal symmetrical limb.

The pain mechanism in causalgia is explained by others[17] as an activation of sensory nerve fibers by efferent impulses in the sympathetic fibers. The increased blood flow in the painful limb is, by this theory, explained as stimulation of afferent fibers causing antidromic vasodilatation. Sympathetic block relieves the causalgic pain.

As an explanation for the extinction phenomenon, Bender offers the rivalry between sensations arising from two different parts of the body. There is a constant competition of the two sides of the body with each other; and the stronger the sensation on one side,

the less the patient perceives on the weak side. The principle of dominance can be demonstrated to a certain extent in the normal subject.

As explanation of the fact that extinction phenomena occur mostly in patients with cerebral injury, Bender suggests a theory by Goldstein:* "The available energy which is constant, is utilized better and to a greater extent by the normal cortex so that an insufficient amount is left to use for the diseased cortex in effecting a performance."

In central nervous system pathology, for instance in syringomyelia, or lesion of the thalamus or internal capsule, or lesions in the post-central gyrus, the threshold level of the areas concerned is always raised and the quality of pain greatly changed.

In central nervous system lesions, the affected skin areas become hyperalgesic. The quality of pain in a hyperalgesic area is always changed. In such an area a type of "all-or-none law" for pain exists; a pain stimulus of a threshold level causes a sensation of an overwhelming pain, a subthreshold pain stimulus, an itching sensation. Wolff and his co-workers[20] have recently made very extensive studies on hyperalgesia. They define the hyperalgesic state as a condition in which either ordinary non-noxious stimuli become capable of inducing pain or noxious stimuli induce pains of greater intensity than they normally do. In other words, two kinds of hyperalgesia are observed, one in which a lowering of the threshold is observed, and another in the presence of a normal threshold.

Pharmacological agents which raise the threshold include novocaine—locally or peripherally applied. (Recently novocaine has also been used intravenously with very promising results.) Alcohol, ether, acetylsalicylic acid, opiates, morphine are other agents, which raise the pain threshold, although by a different mechanism. Hypnosis, abstraction, suggestion, auto-suggestion and other psychological emotional states raise the threshold. The mechanism of these latter is very similar to that of the pharmacological agents, like opiates and alkaloids. Talbots published an interesting report concerning another form of alteration of the pain threshold that he observed in a trained animal. He administered to a dog an electric shock that burned him and immediately thereafter fed him. After this procedure had been repeated

*Private information given by Goldstein to Bender.

for a certain time, the animal did not show any painful reactions to the burn—only a food reaction. In this manner, Talbots could experimentally imply that this repeated procedure altered at least the threshold of pain reactions and obviously also the threshold for pain. Observations reported by others make it certain that pain present in any part of the body raised the threshold level of any additional painful stimulation.

Any lowering of threshold has been observed only where there is local inflammation or local injury with epithelial denudement—a very important observation which may help to explain some pain mechanism in many true visceral pains.

In teeth, a lowering of the pain threshold has been observed after painful stimulations have been repeated. A possible explanation for this phenomenon may be the peculiar anatomical arrangement of the sensory apparatus in the teeth, the end fibers of the second and third rami of the fifth cranial nerve, situated in the pulp. The pulp is a convolution of vessels—blood and lymph. The unyielding bony opening of the tooth, foramen apicale, is in adults a nearly microscopic opening, compressing this vital organ. Painful stimuli may, by their accompanied antidromic reactions, cause a temporary state of hyperalgesia, explaining a lowering of the threshold.

A rather recent finding has been published to the effect that the blister fluid of the skin, injured by heat, contains an agent which is capable of lowering the threshold for pain in a healthy skin spot, into which the fluid is injected. This observation, if confirmed, may bring revolutionary progress in the knowledge of pain mechanism.

Pathways for pain were described fairly correctly in the previous century by German anatomists. They localized correctly the pain pathway in the anterolateral portion of the spinal cord, the spinothalamic, and the spinotectal. The pathway, as it is assumed to be today, can be described briefly as follows: Pain fibers cross as a rule in the same segment of the cord. In the posterior root, ganglion cell bodies of all sensory nerves are found. From there, dendrites of neurons enter the cord along the posterior lateral sulcus. They penetrate the gray matter in the region of the posterior horn. Here, impulses switch to a second neuron, whose cell body is in the posterior horn, are transferred to the opposite side of the cord, and ascend to the lateral thalamic nucleus in the

lateral spinothalamic tract. Those fibers, mostly unmyelinated, of very fine caliber, laterally situated, entering the Lissauer tract, are the exclusively pain-bearing fibers; all others are also associated with touch, position, vibration and proprioception.

Deep fibers from muscles, joints and tendons run for the most part with motor nerves, before entering the Lissauer tract, not with the proprioceptive fibers (Woolard).

Walker[21] postulates—after clinical observation at an operation in which a whole hemisphere (except the basal ganglia) was removed and after observation of another patient on whom a one-sided mesencephalic tractotomy was performed—that carriers of painful impulses to higher centers, must be contained in still another, probably the spinotectal, tract; and White accepts the view that still other sensory fibers exist, passing along the sympathetic and visceral fibers.

The pain fibers in the spinothalamic tract show a definite topical localization. In the thoracic portion and in the medulla, those from the caudal end are situated laterally and those from the rostral, centrally. Clinical observations by Schwartz and O'Leary[22] confirm this fact. In one reported case, they sectioned the spinothalamic tract at the level of the inferior olive, in a second case the tract between the vagus and olive, in a mediodorsal direction. During the operation, they observed signs of this topical arrangement by the gradual loss of pain, with full preservation of touch sensation in the different levels of the body.

The topical localization remains unchanged higher up in the spinothalamic tract.

The pain fibers, after entering the lateral nucleus of the thalamus, end in the postcentral gyrus. Connections of this nucleus with the hypothalamus and other cortical centers have been found in anatomico-histological studies. Clinical evidence and experimental studies in men and animals make it certain that at least some parts of the body are also bilaterally represented in the cortex.

In the gyrus the localization of the pain fibers has also been ascertained. The fibers from the medial part of the thalamic nuclei and lower, and those from the lateral part end higher up.

The consciousness of pain arises in the brain at the level of the mesencephalon and above. Walker[23] concludes that pain perception occurs on three levels. The highest level, in the

cortex, produces the normal appreciation of a pain, for instance, the well-known sensation of a pin-prick. This sensation is a complex sensation of the other different, simultaneous perceptions, like touch, localization and appreciation of the stimulating object. He postulates that the activity of other cortical centers is able to modify these sensations to a great degree. The perception may become aggravated or prohibited; the quality of pain, because of a different emotional state, may be changed. A painful stimulus may not be appreciated at all as an unpleasant sensation, while the individual is, for instance, closely concentrating otherwise. It is well known that during a battle, especially in a hand-to-hand fight, one may become wounded without having felt any pain. On the contrary, focusing attention on an expected painful occurrence may increase the intensity of the perception and may give rise to an anticipating anxiety state, which in turn may fully hide the normal pain perception. Walker[23] concludes that "it is evident that a pain stimulus perceived, integrated in this level, may become quite different from the specific painful sensation." He reports that this consideration led Mahoney to remove involved parts of the cortical sensory receptive structure, with very good results to relieve so-called "phantom pain," an operation which, in turn, led to lobotomies for relieving pain.

Walker's conclusions are corroborated by the interesting experiments made by Wolff and Godell[24] to determine the relation of attitude to the perception and reaction of pain. It has been mentioned previously that experiments have proved that after administration of analgesics the pain threshold level shows a definite rise. Those experiments were made with subjects who had to be detached and unprejudiced. To get information about the relation of attitude to the pain threshold, subjects have been put under the influence of suggestion, distraction or doubt. They received capsules containing either a placebo or 0.3 gms. of acetylsalicylic acid. Neither the subject nor the attending physician had knowledge of the content of the capsules. Their findings culminated in the conclusion that attitude and suggestion modify the pain threshold and manner of reaction to pain. Prejudice, anxiety and doubt altered the threshold level very significantly. The reports by these subjects on the effect of the analgesic in raising the pain threshold showed its effect as practically negligible.

Those experimental findings corroborate also the long-known fact that the patient-physician relationship is of at least the same importance in alleviating the suffering of the patient as the medication used. A confident patient is easily helped—a suspicious one with great difficulty. A convincing attitude on the part of the practitioner gives alleviation to most sufferers with a minimum effort. In somatic therapy, the same laws are in effect as in psychotherapy.

The second very important level, according to Walker, for perception of pain is the thalamus. Its function is mainly to integrate the pain sensation with other sensory impressions. Foerster[25] also presented evidence that, in the thalamus, there are suppressing-influences of the posterior tract impulses on impulses in the anterolateral tract.

The third and lowest level for pain perception is supposed to be in the tectum mesencephali. This level rarely functions in man as a pain perception center. Its role is more effective in lower animals.

A sensation closely related to pain sensation is itching. Itching is defined as an unpleasant sensation which provokes the desire to scratch. (Itching has nothing in common with a vibrating sensation, produced by touch, with stimuli of high frequency—or with prickling, a sensation produced by oxygen lack, for instance, in circulatory arrest in limbs. Tickling, however, is a sensation that seems to be related to itching, as it represents a sensation of impulses carried by the same nerve fibers, to the brain, as those of itching.) G. H. Bishop is of the opinion that itching is induced by stimuli of an intensity below the pain threshold, the sensation is "due to a central mechanism of selective interpretation."

Rothman[26] reports that itching arises from any suitable stimulus, from weak pain stimuli if numerous neighboring skin spots are stimulated. As an explanation for this observation, he accepts the fact that multiple stimulation causes a mutual accentuation of impulses, perceived as itching. Itching can be elicited from every spot on the skin surface. The highest sensitivity to itching is observed around the large openings of the surface in the tissues between skin and mucosa.

Itching may be a physiologic or pathologic sensation. Rothman defines pathologic itching as "an intensification of the physiologic sensation."

Observations made early in this century disclosed the near relationship between itching and pain, as both sensations are mediated and carried by the same receptors and fibers.

David T. Graham and Helen Godell made experimental observations on the neural mechanisms involved in itching at Cornell University in New York City. They found, according to the private information the present writer received from Miss Goodell, two components in the itch: a superficial pricking and a deeper burning sensation. Ischemia could obliterate the superficial pricking component, but not the deeper burning sensation. Procaine block of a cutaneous nerve resulted in the abolition of the burning pain from a pinprick, but the pricking pain in the area of incomplete anesthesia was retained, and prevented the burning itch, although the pricking itch was experienced. These experimental observations yield the conclusion that in the neural mechanisms of itching, not only the peripheral nerves but also processes in the central nervous system, presumably the cord, probably are involved.

Rothman's studies disclosed also, according to his report in 1922, the close relation of itching to the protopathic pain fibers, an observation confirmed by Zottermann's experiments. Rothman's studies were clinical; he tested skin areas which lost, due to some nerve injury, the epicritic sensation. In those skin areas, no distinct differentiations were perceived by the subject between pain and itching; when the itching stimulus was increased, itching was perceived as a pain of a protopathic character. There was poor discrimination of different intensities and an aftersensation of itching after the stimulation had ceased.

Zottermann's[27] experimental studies, proving the relationship of itching to protopathic nerve sensations, were obtained with electroneurograms. The electric records showed—when stimuli of touch sensation, or painless deformation of skin were used—large potentials in the electroneurogram like those found by stimulation of the A- and B-fibers. Stimuli, applied to the skin without deformation, for instance heat stimuli, showed axon potentials of very low amplitude waves, corresponding to the C waves.

However, if touch or deformation was painful, sudden response of the large fibers occurred and was then followed by the responses of the very small ones; the latter continued after discharge. This observation fits in with clinical observations of the

itching aftersensation produced by stimulation of protopathic nerve fibers. The conclusion that itching and protopathic sensation are functions of the same set of nerve fibers was experimentally corroborated in that way.

The mechanism of itching in conditions like urticaria, wheal, prurigo nodules, eczema, is explained by formation of irritating substances locally by the pathological processes.

The mechanism of itching in systemic diseases, like jaundice, Raynaud's, and Hodgkin's disease, is still in the state of hypothesis. Some express the opinion that itching in Hodgkin's disease is caused by an absorption of toxic substances from the altered lymph nodes. French scientists consider the itching in Hodgkin's disease to be due to "disturbances of the nervous system." Allergy is considered in cases when vesicles in the skin develop.

In Hodgkin's disease when patients complain about itching of a segmental distribution, one may wonder whether the itching sensations are not simply caused by the pressure of growing lymphatic tumors on the nourishing vessels or on the nerves or nerve roots. This could perhaps be verified by the pathologist at post mortem examinations on Hodgkin's disease patients who have complained of itching in circumscribed segments of their body.

The mechanism of itching in jaundice is thought to be caused by metabolic disturbances. Due to biliary obstruction, the liver cell becomes damaged and produces insufficient cholinesterase, causing an excess of choline or acetylcholine in the blood, which in turn produces the systemic effect.

The fact that itching, as a rule, is absent in hemolytic jaundice where the liver cells remain intact, seems to confirm this theory; the modern view about the bradycardia which also is observed only in obstructive jaundice discards the old theory that the retained bile salts act by stimulating the vagus. Experimental studies have revealed that, while concentration of bile salts as they exist in hepatic bile is of little influence on the heart rate, very high concentrations of bile salts cause toxic injury to the myocardium.

Psychological conditions are other factors causing itching. It is well known that the sight of a biting parasite may cause the sensation that provokes the desire to scratch. (Parasitophobia is a well-known symptom to the psychiatrist.)

The psychological component of itching has been repeatedly reported in the literature. Dengrove[28] presented case histories of two patients who suffered dermographic responses following emotional stress. Those patients have been described as rather immature, passive, dependent individuals with family histories of allergy. In their emotional stress they developed anxiety which in turn led to many neurotic symptoms, and the psychosomatic symptom was dermographic response. In those individuals, he concluded, "The nervous energy is in part or wholly expressed through the vegetative nervous system, because some psychological barrier prevents expression at the conscious level. A psychosomatic disorder acting upon the vegetative nervous system leads to increased permeability of the vessels in predisposed individuals. This in turn produces generalized latent edema or urticaria in the corium at the site of the wheal formation. The occult edema stretches the skin only minutely and results in sublimal pressure upon the pain endings. This is subjectively felt as pruritus and followed by scratching. The latter acting as a stimulus mechanism manifests the sub-threshold urticaria. This also lowers the threshold of urticaria response of mechanical stimuli and skin-writing."

Itching in some skin spots is a characteristic symptom in the so-called hyperalgesic state. In those areas pain sensations, as previously mentioned, are greatly modified. Weak sub-threshold pain stimuli cause itching, and a pain stimulus of threshold value, causes very intensive pain, poorly localized with an after-sensation of itching, continuing for a considerable time after the stimulus has ceased. Sir Thomas Lewis calls the hyperalgesic state "itchy skin."

Sir Thomas Lewis[29] is of the opinion that the pain system and the nocifensor system, the latter concerned with the spread of the hyperalgesic state, are two different systems. He concedes that some hyperalgesic conditions may be the result of a lowering of the threshold for pain in some sensory nerves subserving pain, but that hyperalgesia is not provoked by the pain nerves, that the axon system alone is responsible for the hyperalgesic state. The histological-anatomical investigations, which prove that there is an axon system derived from the dorsal roots, as well as Zottermann's electroneural experiments, support Lewis' view.

The scratch reflex is a spinal reflex. According to Rothman[26] scratching in physiologic itching is the reflex action to remove the stimulus (foreign body) to abolish the itching sensation; in pathological itching, scratching is also a reflex action; it stimulates the epicritic pain fibers, causing the more tolerable epicritic pain, which gives relief to the more distressing protopathic itching sensation. Unfortunately, while this stimulation relieves the subject from itching for a while, the mechanical stimulation of the itching skin produces, besides the desired relief, the after-sensation of a long-lasting intolerable itching. The vicious circle thus develops.

In allergic reactions causing itching, epinephrine and calcium compounds are the logical drugs. It may be of interest to mention that morphine and alkaloids, for unknown reasons, do not decrease, but accentuate itching sensations.

In that connection, a report on the present knowledge of the action of morphine may be of interest. In a recent edition[30] of Sollman's *Pharmacology* the action of morphine is described as follows: "Morphine action is most important on the central nervous system. It depresses the brain especially the higher functions and the medullary centers after first stimulating the latter. In small doses it diminishes the sensibility to lasting impressions such as give rise to pain—in larger doses it depresses the attention and thus weakens the appreciation of other external impressions. The stimuli are transmitted to the brain but do not fix attention. Through the exclusion of external stimuli the patient is quieted down and then passes from a drowsiness into a natural sleep." In other words the action of morphine for pain relief is its action in causing the highest center "not to fix the attention" on the transmitted painful stimuli. Its action is in some ways quite similar to the effect of a lobotomy performed for relief of intractable pain. Freeman and his co-workers observed in all such cases, that the patients become comfortable, they do not complain about pain any more, in spite of the persisting pain. They become relieved of the "suffering" of the pain. Helen Godell informed the present writer that she and the experimental subjects used to report, while under morphine and receiving pain stimuli of different threshold strengths: "I feel the pain, but I don't mind."

The Wolff, Hardy, Godell school[31] found, in their experimental studies on the pain threshold in patients under morphine, that morphine is the most potent drug for raising the pain threshold.

This action, however, is only effective when administered before the painful stimulus has been applied. It is nearly ineffective when administered while the pain is perceived.

Those findings have a profound practical value for the practitioner. He will, whenever possible, in order to obtain the maximum beneficial effect from pain-threshold raising, administer this drug before the patient is expected to experience a pain from whatever reason. The present trend in administering morphine is to combine this drug with prostigmine. Slaughter's studies revealed that this combination results in a more potent threshold rise, than a dose of morphine alone.

Neurosurgical treatment of itching can be accomplished by cutting the protopathic fibers in the anterolateral tract of the spinal cord. These neurosurgical findings corroborate the evidence of the close relation of itching to the protopathic nerve pathways and seem to corroborate Head's theory of the restraining action of the epicritic fibers over the protopathic.

In reporting on the mechanisms of some of the most common pain symptoms in different parts of the body, a short report on the present view of the psychalgias seems to be important. They may dominate practically all pain sensations. Psychalgia may be defined as "pain perceived due to emotional stress." Stearns concludes in his paper, "History of Development of Functional Nervous Disorders," that the relationship between psyche and soma has always been observed throughout the history of medicine in the past 2,000 years. The early physicians thought in terms of visceral diseases causing nervous disorders; today we have reversed the trend, and think of visceral diseases in terms of nervous diseases. The same is true, the present writer would say, about pain.

More than a century ago, Brodie reported his observations in the pain of—as he calls them—"hysterics." He states that in these patients, natural sensations of a part may be increased, diminished or otherwise perverted. He does not doubt that psychalgias cause very real pain. He says the many quite futile amputations which have been willingly undergone by patients in the preanesthetic days, in order to be relieved of their hysteric joint pains, are convincing proof of the pains' real existence. At that time, Brodie's fine powers of observation enabled him to find one of the differential diagnostic symptoms for the psychalgias which

is still of great value today: "Cutaneous hyperesthesia of any part of the body where pain is claimed is an important symptom in distinguishing it from organic diseases."

A few decades later Block described pain in neurathensia as a pain of central origin, a fixed image in the domain of pain, analogous to fixed ideas in the domain of intelligence. He called those pains "topalgia." Another English scientist, Edison, compared pain very suggestively to an anxiety state. He says, "pain is a reaction against bodily disorders or threats from within, anxiety is a natural response to external situations which threaten to become overwhelming." Both, he says, "are out of proportion to the exciting cause, in both the matter is one of balance between internal and external direction of the psychosomatic response." Woolard explains psychologic pains as not primary sensations, but complex states of mind, the subject has a kind of obsession about pain or uses this word figuratively for his emotional state because he can't find better expression for the distress of mind he suffers.

Halliday in a very recent paper stresses the important role played by psychological factors in initiating and maintaining illness and pain. He explains the mechanism in somewhat the following way. The bodily mechanism of emotion consists of the triad of the primitive brain, autonomic nervous system and endocrine glands. By means of this mechanism, psychological factors may affect an individual profoundly, bringing about changes in chemistry, rhythmic secretion and even structures in the whole of the body or in any part of it. As an illustration he cited grief, as a response to the loss of a loved person. The acute phase of grief may vary from days to weeks. This emotional state may invoke every vegetative system of the body—classical symptoms are tears, twitching of lips, choking, a feeling of the heart breaking. After time has passed by, some of those bodily disturbances may subside; but, in some individuals, some of the feelings may persist in a modified form, for instance, choking changes to asthma, "heart breaking" to anginal palpitations. (It may be of interest to report that Brooks, in a study of 320 cases of angina pectoris found that emotional stress was the etiological factor for angina pectoris in 71 cases, nearly the same number as in thrombosis, embolism, or in myocardial diseases.) Their attention is no longer focused on the bereavement, but is dominated by the symptoms.

He continues this illustration, explaining the mechanism of the development of a neurosis with pain syndromes. Grief, he says, is nearly always associated with other emotions, like fear (the uncertainty of the future of the subject) and guilt. It is associated with guilt, because one of the most common primitive feelings when bereaved, is the guilt feeling that something might have been done to prevent or postpone death. (This explanation for guilt feeling is taken by Halliday from Charles Darwin. The more modern explanation for guilt feeling, the unconscious death wish, may be substituted for Darwin's explanation.)

Nolan D. C. Lewis considers still another mechanism for psychalgia. He calls it "the education of the sensibilities as the result of attention to physical fixation points." One may succeed, by focusing the attention upon a part of the body, in re-educating a visceral or peripheral sensibility to hyperactivity, even to the point of suffering miserably from sensations of pain . . . perhaps resulting in part from the increased tonicity of the part.

A quite different theory about the mechanism of psychalgias is that of Glazer. His theory is based on the changes in the vessel walls, produced by the vegetative nervous system influenced by emotion.

A very important and convincing contribution to the tenet that emotional stress or tension by itself may initiate pain quite similar to a pain due to some pathology in the deeper structures, has been produced experimentally by Simons[32] and his co-workers. They published in 1943, "Experimental Studies on Headache, Muscle of Scalp and Neck as Source of Pain." Those studies were made with an oscillograph and a recording of the electrical potentials of the neck muscles, by simultaneous registration of the experiences of the test subject who at the time of the test was in a tense emotional state.

Those studies demonstrated that pain caused by emotional tension can equal pain obtained by the wearing of a headscrew apparatus which by a continuous painful pressure, produced superficial pain which caused secondary spasm of the neck muscles, which in turn produced headache.

Rilley's[33] observations support these findings. He made macro- and microscopic examinations of small excised portions from such spastic muscles. Productive inflammation was found. He believes this inflammation causes irritation of the nerve endings produc-

ing the spasm, which in turn causes pain. Pallock has a quite different view about the pain mechanism of some "psychalgias." He suggests the presence of cerebral disorders in many so-called hysterics. Those cerebral disorders are unknown to the examiner while making his tentative diagnosis of a psychalgia. To support this view, he cites different visual and sensory phenomena, originally considered to be hysterical, which later proved to be of organic origin.

That this view is correct in many cases diagnosed as psychalgias can hardly be questioned.

One such case was committed to the writer's service about two years ago. A 40-year-old man complained about distressing pain in the area of his right eye. Physical and neurological examination in the first few weeks was negative; placebo hypodermics with saline solution relieved the pain for a time; reports of the attendants about his behavior when the examiner was not on the ward seemed to confirm psychalgia; and he was diagnosed as neurasthenic. A few weeks later, exophthalmos and other definite visible physical and neurological findings, proved the diagnosis wrong. An autopsy performed on this patient revealed a brain tumor which, by its location, explained the pains complained of.

This case proved the very well-known fact that not finding any pathologic changes in the human organism in spite of very careful and exact examination, does not exclude the presence of such changes. Our medical knowledge and skill are still limited, and are not adequate in all cases clearly to visualize the pathologic changes causing the complaint of pain. This case illustrates also the different reactions to pain under different situations and conditions. This patient complained as mentioned previously about intractable pain as often as one of the physicians approached him, his facial expression becoming painfully twisted. However, when he thought he was unobserved or when he had received an injection of a placebo, no evidence of pain was noticed.

Hart[24] mentions in an essay on displacement of guilt and pain that "the degree of painfulness of intense guilt is the amount of pain a person will endure in the form of self-punishment in order to bear the guilt. Indeed the etymology of the two worst, guilt and pain, indicate the underlying root in crime and punishment the fact that pain (*poena, peine*) means penalty in so many languages, implies that the preference for pain when one is guilty

is based upon the unbearable nature of guilt which so promptly seeks such relief in punishment. It is interesting to note that man, who of all animals seems most capable of enduring pain, is at the same time, least able to endure guilt; anxiety is less tolerable than physical pain because of the many defenses the organisms put up against it, including pain or even psychosomatic disorders—hence psychosomatic disorders may be erected as defense against it."

Maja[35] gives a very clear concept for understanding the relation of psyche and soma to disease. He expresses the view that the etiologic formula in many diseases is "psychic disturbance—functional disturbances—cellular changes—structural changes."

The connection and mutual influence of the corticospinal and autonomic nervous system explain the way in which emotions can influence bodily functions.

Emotions are phenomena of a psychosomatic nature, consisting of (1) psychic components, (2) motor response, and (3) vegetative response. The emotion may manifest itself only in one of these components. The first two may not become apparent, leaving only the vegetative response and if this persists for a considerable time it is self-explanatory that irreversible cellular changes occur.

Psychotherapy, supported by chemotherapy, is the method of choice in the treatment of subjects suffering from pains which fall under the heading of the psychalgias.

For differential diagnosis between true visceral pain and psychalgias, experimental studies of Weiss and Davis[36] have disclosed that, in true visceral pain, local anesthesia of the part where the referred pain is complained of abolishes the pain for a certain limited period, up to 12 hours. Local anesthesia or a pretended anesthesia in psychalgias, abolishes the pain for a long period—observed up to one year. Pratt's and co-workers' statistical experiments confirm the fact that pain relief in psychalgias with anesthesia and simply by insertion of a needle without using any anesthesia showed the same favorable results.

A condition which may resemble psychalgia is malingering; however, for a differential diagnosis of those two conditions, the practitioner possesses many more differential symptoms. The differential diagnosis is rather simple, and the conclusions are more reliable than the differential diagnosis of true visceral and psychic pain. Woolard, the writer believes, described the two

types, the neurasthenic and the malingerer. "Both act their parts, both may command a persuaded audience, but only the neurotic is a persuaded actor and really lives the part."

One of the most common complaints of pain is headache. The mechanism of headache can be explained only after an exact knowledge of what different structures in the head are sensitive and may produce a perception of pain and what do not show any sensitivity toward pain stimuli. This has been ascertained by various neurosurgeons, and a report was published lately rather systematically by Wolff.[37] All tissues covering the cranium, the vessels, arteries and veins have been found pain sensitive; intracranial structures sensitive to pain, are the dura at the base, the great venous sinuses, the dural arteries, the brain arteries, the fifth, ninth, and tenth cranial, and the upper three cervical nerves. The cranium and its diploic and emissary veins, like most of the rest of the dura, the parenchyma, the pia, the ependymal linings —are not sensitive to pain. Pathways for pain in the intracranial structures above the superior surface of the tentorium cerebelli are by way of the fifth nerve; the pathways below the inferior surface of the tentorium cerebelli are by way of the ninth, tenth and the three upper cervical nerves. Roughly stated, pain conducted by the fifth nerve is referred to the front of the head, those by the other nerves mentioned more or less to the back part of the head. All studies about the mechanism of headache from intracranial sources as reported by Wolff, can logically originate only from those pain-sensitive structures; the pain stimulus, it has been found, can be traction, distention, and dilatation of the vessel walls, or inflammation of the pain-sensitive structures and pressure from tumors on the cranial and cervical nerves. All those pains have been described as of the character of referred pain— headache in sepsis or fever of any origin, according to Wolff, does not show the characteristics of referred pain.

Clinical experience has taught that headache occurs always after drainage of a sufficient amount of cerebrospinal fluid (about 1 per cent of the total of the craniospinal content) in the erect position. The mechanism of this pain is explained by the stretching, either laterally or longitudinally, of the vessels in the interior of the brain, due to the greatly diminished pressure of the cerebral fluid after the draining. This thesis is confirmed by the fact that pain ceases upon raising the pressure by intrathecal injection of a suf-

ficient amount of saline, or by changing the position from erect to supine.

Headaches following intravenous histamine injection were demonstrated, by Brenner, Friedman and co-workers,[38] to be quite independent of the changes in the cerebrospinal fluid (contrary to previous belief). "After a short dilatation of the vessels, with a fall of blood pressure—a reflex rise of blood pressure occurs above the resting level, which is about equal to the immediate fall of blood pressure. As the pressure rises the headache begins and is most intense at about the height of the rise. The headache is presumably due to stretching of the walls of the intracranial arteries, in which the pain nerve endings lie, as the relaxed arteries are distended with blood driven in under increased pressure." In these experiments they used, among other procedures, digital pressure on the carotid artery (jugular compression) and a second injection of histamine intravenously at the height of the headache. The experimental findings corroborated his view.

Post-traumatic headache, according to Friedman's experimental studies, has the same physiologic mechanism; and the same mechanism is responsible for headache due to fatigue or to the onset of an acute infection.

Migraine headache is related to the changes in the amplitude of pulsations, chiefly of the external carotid artery. This explains the relieving action of ergotamine tartrate and of pressure on the carotid artery. Both reduce the amplitude of the pulsations and reduce the intensity of headache.

Tillim recommends insulin intravenously for pain relief in migraine headaches. Hypoglycemia, he states, is antispasmodic and is antagonistic to the sympathetic activity responsible for the migraine headache. Lennox[39] describes migraine as an epilepsy of the sympathetic nervous system. The causes of epilepsy are also causes of migraine, and each attack represents a summation of the contributing factors. However, other scientists oppose this view; and Palmer[40] examined the blood guanidine level of epileptics and migraine sufferers. In epilepsy, the blood guanidine level rises from normal with the onset of the aura and remains high until the seizure is over. In migraine, no change occurs.

Headaches in hypertension show a very similar mechanism in producing the pain. Here, too, the dilatation of certain branches of the external carotid artery, but not of the pial is the main causa-

tive factor. The recent definite physiologic findings make it certain that the pial vessels possess the property of regulating their volume according to varying needs. They may dilate when the blood pressure becomes lowered and contract when it rises. This fact by itself makes it very improbable that a dilatation of the pial vessels would be the causative factor for headache in hypertension.

That headache in hypertension is caused by dilatation of the branches of the carotid is supported by the fact that ergotamine tartrate, in spite of its well-known action in increasing systolic blood pressure, reduces the pain. Also, pressure upon the carotid artery reduces the pain, and last but not least are evidences that in hypertensive patients headache may be present when the blood pressure is low and absent when it becomes high. The role that hypertension plays in headaches is rather a secondary one. The raised blood pressure in hypertension may stretch the elastic vessel walls above the limit of elasticity, the vessels may lose their normal elasticity and more easily dilate to a point producing pain. Headache due to brain tumor is considered to be caused by traction or pressure upon sensitive intracranial structures.

Localization of headache may be of importance in diagnosis of the localization of brain tumor. The diagnostic value of pain for tumor localization, is not definitely reliable, but it may aid the localization. Clinical statistics show that in a great percentage of cases, the headache is localized on the side of the tumor. In intracranial tumors without signs of raised intracranial pressure, it has been observed that the tumor was located in a very great percentage of cases near the spot where the headache was localized by the patient. Tumors in the posterior fossa show, as a rule, headache as the first symptom, and pain is localized over the back of the head. A condition in which a certain type of headache may be a very valuable diagnostic symptom of a tumor and its localization is a paroxysmal headache, which may be precipitated or abolished by changing the position of the head. This syndrome is pathognomonic for a ball-valve action of a growth, blocking the foramen of Monroe. This tumor is, as a rule, a cyst or a nonmalignant growth.

Another characteristic of headache from brain tumor, is its intermittent character.

The present view of headache of emotional origin can be found in a very brief and excellent description in Moench[41] in the book "Headache." "The origins in the neurotics," he says, "are often hidden in post-anxiety states. Often there is a considerable lapse between the stress situation and the development of the physiologic disturbance which may then persist long after the emotional state subsides and even after it is forgotten." He found headache commonly in many psychoneurotic states, in hypochondriacal anxiety and conversion neuroses, and in obsessive-compulsive states, but rarely in psychotic patients. "The person whose psychic mechanism is able to achieve a compromise such as a headache, unpleasant and unsatisfactory as it may be, may continue to live in the world of reality. When the struggle is lost and the patient retracts into a psychosis he may no longer find it necessary or find himself able to convert his conflicts into physical symptoms." And Brenner remarks, headaches occur in patients who have suppressed strong feelings of resentment or anger, hysterical identification or conversion through symbolic displacement satisfying a need for punishment.

As to the differential diagnosis of headaches of emotional origin, Moench reports that patients with them describe their headaches as not following any definite pattern as to time, duration and exciting factors. A very significant fact is that their duration is described by them as lasting for years, "or all my life." They amplify and exaggerate the pain. Relief is afforded by numerous rather bizarre measures like enemas, scalp massages or diet.

Headaches associated with nasal pathology, eye pathology, refractive errors, extraocular muscle imbalance, ear pathology and so on, have been extensively studied and reported. These are of special interest to the practitioners in special fields and will not be discussed here.

However, a report published by Robertson and his co-workers about their experimental studies on headaches caused by painful stimulation of teeth is interesting enough to be mentioned—at least as to the published findings. While the teeth were painfully stimulated, profuse salivation, lacrimation and flushing of the face on the stimulated side were observed. After termination of the stimulus, the toothache quickly subsided, being replaced by a sensation of tightness around the tooth, a stiff sensation. When an upper tooth was stimulated, this feeling occurred in the temporal

region, forehead and scalp. Stimulation of a lower tooth caused rather similar reactions, with a changed distribution of pain, involving also the area of the third ramus. The headache persisted up to eight hours, gradually diminishing. During that time, it was observed that the muscles and tissues on the side of the painful stimulation became tender, and the skin over the area showed a hyperalgesic character. A local anesthesia of the spot where the maximum of the referred headache was complained of relieved the pain to some extent. A local infiltration into the source of the noxious stimulus (the tooth) relieved the pain and the other accompanying disturbances completely. The workers' comment is, that the noxious stimuli from the tooth gave rise to excitatory processes in the brain stem, the spread of which exerted their effects on the many trigeminal structures.

In discussing visceral pain in the thorax and abdomen, the writer does not intend to give a clinical report of the evaluation of the character and distribution of such pain for diagnostic purposes. Behan's work, *Pain*, 1914, although antiquated, impresses the writer as the most instructive work for the practitioner. The great scientific progress in the knowledge of pain, achieved in the last four decades supports most of the clinical experiences published in this book.

The knowledge of the mechanism, of visceral pain in the thorax and abdomen is of great importance to the physician. An effective and logical approach to those complaints, is, in fact, possible only if the physician is well acquainted with this matter.

The thoracic parietal pleura has its sensory afferents in the upper thoracic intercostals; the peripheral parts of the diaphragm, in the lower six intercostals; the central part of the diaphragm and the pericardium as high as the fifth and sixth interspace by way of the phrenic nerve. All of these are somatic nerves. All pass along the spinal nerves through the posterior roots to the higher centers.

In the abdomen, the parietal peritoneum only has a somatic nerve supply.

The bronchi, lung parenchyma and visceral pleura have sensory nerve fibers which proceed, with the sympathetic nerves, through the white rami communicants, the posterior roots, to the higher centers. Except for the afferent nerve fibers mentioned, it is assumed that accessory pathways for pain sensation are present in

the sympathetic nerve fibers, which pass in the antero-lateral tract to higher centers. The chronaxia of those fibers is like that of sensory fibers and differs from that of the sympathetic nerves (Grinker[42]).

The heart muscle is insensitive to pain, a fact known nearly 100 years ago. Nerve fibers in the heart that respond to painful stimuli are situated in the adventitia of the coronary artery. They send afferent impulses by the way of the cardiac nerves, via the cervical ganglia, the para-vertebral chain of sympathetic ganglia to the upper four thoracic roots. The pathways for the upper abdominal viscera are mainly through the splanchnics and for the lower by sacral roots.

Concerning the visceral nerve fibers, we have a significant statement by Sir Thomas Lewis that all visceral nerve fibers are anatomically and physiologically like the somatic; the only difference is, that the visceral nerve fibers pass at first by the channels of the sympathetic nerves. The vagus carries some sensory fibers too, mainly from the bronchi and esophagus. The lateral portion of the vagus nucleus has a special visceral sensory function (Grinker).[43]

Experimental studies on pain sensations in all these viscera have demonstrated that, except for the structures supplied with somatic sensory fibers, all are insensitive, while normal, to any ordinary pain stimuli, but sensitive to distention of a threshold strength. Such tension has been for a long time considered the only adequate visceral pain stimulus. There are reports on experimental studies that distention of the root of the aorta causes pain, as well as distention of the bile duct (Layne and Goergh). That distention of the bowel produces pain has been mentioned previously.

Pain related to the heart, anginal pain, is clinically observed in coronary obstruction—embolism—and is due to a disproportion between the demands of the myocardium and its blood supply. According to Rothschild's[44] observations cardiac pain may be experimentally induced by breathing air of a low oxygen concentration. There are two theories about the mechanism of anginal pain: the one the ischemic by Sir Thomas Lewis,[45] still nearly universally accepted; the other advocated by Gorham,[46] the so-called "tension" theory. Briefly reported, Gorham's theory sets forth that, due to coronary occlusion or embolism, or when the heart is forced to do

more work than its blood supply permits, ischemia occurs. However, the ischemia does not produce pain. The heart, when called upon to do extra work, tries to increase its blood supply. This is accomplished by dilating the coronary vessels—and the distention of these vessels causes the pain. The ischemic theory holds that ischemia itself—due to accumulation of metabolites—produces the pain. Brooks reported that in addition to coronary insufficiency, anginal pains may be caused by aortic pathology, even when no changes in the coronary structures are present. In those cases the distribution of the pain is different. The different distribution of pain is of diagnostic value for the determination of the causative structures involved.

Jones carried out extensive experimental studies on pain in the gastro-intestinal tract. His experiments, made with balloon distention of all parts of the whole viscus under fluoroscopic guidance, disclosed the localization of the pain referred from the different parts of the abdomen. For pains related to the thoracic cage, Capps[30] may be mentioned. His experimental studies disclosed which structures in the thorax are sensitive, whence the pain of these structures is referred, and which do not show any sensitiveness to ordinary stimuli. His studies established that pleural pain is felt exactly above the stimulated area; pain from diaphragmatic pleura, when the periphery has been stimulated, shows a segmental distribution spreading toward the lower abdomen; with stimulation of the central part, or pericardium, the pain is referred to the neck toward the shoulder, quite similar to angina. The mechanism of referred pain from the viscus is explained by Sir Thomas Lewis: "Abnormal disturbances arising in a portion of a viscus, cause the passage of impulses over afferent pathways through sympathetic ganglia to the cord and thence by the spinal thalamic tract to the cortex, where perception is initiated. The perception of the sensation is referred to the periphery in the distribution of the segment of the affected viscus."

The pain mechanisms of the viscera of the gastro-intestinal tract have been explained for a long time according to Lenander's and later Morley's, theory. This theory in short, assumes that all these visceral pains are caused by involvement of the somatic sensitive structures covering them. The stimulus to these somatic structures is mechanical, caused by the spasm or contraction of the dis-

eased viscus. In fact, nearly all previously-mentioned clinical observations and experimental findings point to the correctness of this theory: pleural pain—involvement of the pain-sensitive parietal pleura via mechanical stimulus. Bray[47] postulates that pain in pleuritis is caused by tension on the sensory nerve ending in the parietal pleura. On the parietal pleura approximated, tension is exerted in respiration when ribs and muscles are moved. In gastric ulcer, under fluoroscopy, the contractions and spasms of the stomach have been definitely seen; they certainly involve the somatically-innervated peritoneum; in colitis, the spasms have been observed by sigmoidoscope.

These observations, in connection with experimental observations of the insensitivity of the viscera to ordinary pain stimuli, supported Morley's theory.

However, definite anatomical-physiological findings of pain-carrying fibers in the viscera have been entirely disregarded here. The publications of Palmer's[48] experimental studies on pain in peptic ulcer and of the experimental studies of others cast doubt on the validity of Morley's theory, at least as to its universal application. Their experimental findings prove that while the normal gastric mucosa remain insensitive to any ordinary pain stimuli, the inflamed, ulcerated area becomes pain-sensitive to chemical (gastric acid) and mechanical stimuli. In those experiments any involvement of the parietal peritoneum of the viscus has been carefully avoided. Palmer concludes that visceral and somatic pain differ essentially only in qualities such as the threshold level, the type of adequate stimuli and degree of the stimulation.

Summary

This paper is an attempt to report in an abbreviated fashion the present scientific views about pain and associated sensations.

It reviews ancient philosophical definitions of pain and more recent and present-day definitions of scientists.

The histological-anatomical findings concerning pain receptors, pain fibers and fibers carrying other associated sensations, their pathways and the central representation of pain are reported.

Pain measurement by the "dol," pain threshold and reaction threshold, and the different conditions altering the pain threshold

are discussed. The threshold-raising factors are seen as tools for the practitioner with which to combat pain. Some of the most common pains like headache—or pain from the viscera in the thoracic cage and in the abdomen—are specifically reported. Their origins and the present views of those origins on a somatic or psychogenic basis, and some methods of differential diagnosis of these pains are reported.

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A STUDY OF JUDGMENT IN THE PSYCHOPATHIC PERSONALITY*

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The psychopathic personality constitutes one of the enigmas of modern psychiatry. Although he is not considered psychotic or neurotic in the ordinary clinical sense, it is clear that he is not "normal" in a behavioral sense, although legally he is usually considered competent and responsible. The incidence of this disorder in clinic and hospital practice shows it to be a major psychiatric and sociological problem which greatly needs systematic research that will enrich our understanding and lead to more effective means of coping with it.

One of the interesting approaches to the understanding of the psychopathic personality has been that of Cleckley[1] who has postulated that a real and determinable psychosis is operative in the fully-developed psychopathic personality. However, Cleckley feels that it is a type of psychosis that is markedly different from any that is now recognized in psychiatric practice. He believes that a significant difference between psychopathic personalities and the psychoses lies in the fact that in the psychopathic personality there is no change in the reasoning processes, and that it is precisely this factor which serves as the "mask of sanity" which cannot "be displaced or penetrated by questions directed toward deeper personality levels."[1, p. 258] According to Cleckley, the psychopathic personality, however perfectly he may imitate the normal man in his use of language and reasoning, fails markedly in the actual process of living in and with reality. Thus, the psychopath appears to possess the capacity to understand intellectually but is lacking in the ability to understand emotionally.

Cleckley considers that the psychopathic personality maintains the veneer of the normal individual. He can learn to use the language of other men, but this language has a different significance for him. It is for this reason that Cleckley applies the term "semantic dementia" to these people. Essential to this concept is the defect of judgment which characterizes the behavior of the psychopath, e. g., while he may intellectually recognize the de-

*The authors are indebted to Mrs. Alice Phillips Sells, superintendent of Long Lane School, and other members of her staff for their co-operation in this study.

structiveness of his own behavior, he is nevertheless incapable of utilizing good judgment in exercising control over his own destructive impulses.

Psychoanalysis explains the nature of judgment in the psychopath on the hypothesis that this judgment is deficient where instinctual, primitive and narcissistic needs conflict with social reality, in which case the expression of these needs predominates. This need of the psychopath for immediate satisfaction of infantile strivings has been stressed by Lindner.[2] Woolley[3] has offered the interpretation that the psychopath, throughout his life span, has been unable to forego present satisfactions for future gains.

The present study was undertaken to elaborate further the nature of psychopathic judgment and to develop an objective instrument for measuring differences in judgmental evaluations.

Several objective measuring devices have been employed in studying psychopathic judgment. Wechsler,[4] in applying his intelligence scale to adolescent psychopaths, states that the comprehension subtest, which Rapaport[5] considers to be a measure of the capacity of the individual to make judgments, fails to show any marked defect when compared to other aspects of intellectual functioning. On the contrary, the adolescent psychopath performs outstandingly on the picture arrangement subtest, which Wechsler considers to be a test of social judgment. Wechsler feels that the psychopath's excellent performance on this subtest should be interpreted as reflecting the discrepancy "between understanding and resultant behavior in the psychopath."[4, p. 155] As indicated here, the comprehension subtest as a measure of judgment fails to show any real defect in this group, and the reasons for this appear to be inherent in the nature of the test. The judgments measured by this test permit stereotyped responses which often conceal true aberrations in judgment. Of greater significance, however, is the fact that the items in this test do not force the psychopath into a conflict between immediate gratification of needs and social goals, the type of situation which theoretically stimulates defective judgmental evaluations in the psychopath. Some of the items partially force such a conflict and it is with these items that the defective judgment of the psychopath frequently becomes apparent, e. g., "What should you do if you are sitting in the movies and you are the first person to discover a fire?" and "What should you do if you find an envelope in the street that is sealed, stamped

and addressed?" Where poor judgment is demonstrated with these items, it may be traced to the psychopath's preference for the "id solution."

The Minnesota Multiphasic Personality Inventory[6] also has a scale for the psychopathic personality which purports to measure certain attitudes and judgments which are significant for this population. These items fall into certain general groupings, such as items of social maladjustment, of depression, and of paranoid trends. None of the items directly tap reactions in a conflict situation, but rather, for the most part, serve to inquire about specific facts and general attitudes.

Hypothesis

The present study is based on the hypothesis that the psychopathic personality is capable of learning social values which, however, are not effective in influencing his judgments when they conflict with his needs for immediate gratification of impulses; and the study is designed to develop objective measures of this difference.

Subjects

The experimental group consisted of 22 girls from Long Lane School.* The controls were a group of student nurses. The study involved the administration of a multiple choice test and a completion test. When the completion test was administered, 22 student nurses took the test. When the multiple choice test was administered, only 20 of these students were available. Except for this change in the size of the groups, these two control groups were comparable. The mean age for the group of 22 was 20.9 with a range from 19 to 24. With the group reduced to 20, the ages ranged from 19 to 23, with a mean of 20.7. This compares with an age range of 16 to 21 and a mean of 18.0 for the experimental group. In addition to sex and age, an attempt was also made to control intelligence. Test data were available for determining the level of intelligence of the psychopathic group. To eliminate the possible influence of low intelligence on judgmental evaluations, the study was limited to those psychopaths whose intelligence test ratings were minimally average. For the normal group, no intelligence test data were available, but the assumption of at least aver-

*This institution is a Connecticut state school for girls who have engaged in delinquencies, or who are potentially delinquent.

age intelligence was made on the basis of the educational requirements necessary for admission into nurse's training.

The experimental variable was the psychiatric diagnosis of psychopathic personality for the subjects in the psychopathic group.* No psychiatric study of the student nurse group was attempted, it being assumed that psychopathic personalities would occur statistically much less frequently among this group than among the experimental group.

Testing Techniques

A list of 40 items of the completion type was devised; i. e., the subject completes each item in any manner he wishes. The items were constructed with reference to the hypothesis that in a situation in which learned social values and personal needs conflict, the psychopath will not be influenced by his learned values, since these are only superficially incorporated in the personality structure. While the attempt was made to establish a conflictual situation for most of the items, direct expressions of the psychopath's social thinking and emotional reactions were elicited in some of them. All of the items presented situations which were within the common realm of experience, and therefore should reveal the psychopath's personal, familial, social and community attitudes and judgments.

These 40 items were administered in a pilot study to eight hospitalized female psychopaths. Their responses were examined for typical reactions which might serve as a guide in the construction of a multiple-choice test.

Using the same situations as appeared in the completion items, a 40-item multiple choice test was constructed. Each item contained two choices, one of which was considered to be deviant, i. e., socially undesirable or a poor judgment.

The 40 items are listed below as they appeared in the multiple choice test. The completion test consisted of the same 40 items without the choices, the solution being completed spontaneously by the subject without any clues being offered.

1. Rhoda's friend at the office asked her to stay late and help her out. Rhoda had planned to go to the movies that night. She told her friend

*Diagnoses were made by the Long Lane School psychiatrist.

*a. she had made other plans.
b. she would stay.

2. Lorraine realized that her friends were bad company but
a. she had not known this when she met them.
*b. she had good times with them.

3. Anna found out that she might be able to avoid paying her taxes. She
*a. was pleased for now she could buy other things with the money.
b. did not want to take the risk.

4. Betty was in the movies. She was interested in the picture, but suddenly she noticed smoke coming from a fire across the aisle. She got up quickly and
*a. left by the nearest exit.
b. told an usher.

5. In the state in which she lived, Ruth would have to take a blood test in order to be married. She was a little afraid so
a. she asked a doctor about it.
*b. she decided not to get married.

6. Hattie had saved $50 to buy her mother the coat she needed. That day a girl at the office asked her to bet on who would win the fight. If Hattie won the bet she could double her money. She decided
*a. it was worth the chance.
b. not to risk losing her money.

7. Norma noticed a letter in the street that was sealed, addressed and stamped. She wondered if there was money inside, then she
a. mailed it.
*b. opened it to find out.

8. The girls were teasing Jane about being in love. She became embarrassed and
*a. said it wasn't true.
b. left.

9. Molly's boy friend told her that he wanted to leave her. She loved him so much that she
*a. threatened to do something.
b. let him go.

10. Sue hadn't had any fun at the dance the night before, although she was usually very popular. When her friends asked her about the party, she said
*a. she had had a wonderful time.
b. it was just an off night.

*Choices considered deviant based on pilot study.

11. Elsie knew that Jim did not have much money, so when he called to ask her for a date she
    a. suggested that they go for a walk.
    *b. made some excuse.

12. Francine was bored at her own party. Dave suggested that they go somewhere more exciting. She
    *a. thought that was a fine idea.
    b. said she couldn't leave her own party.

13. Lucy had forgotten to give her mother an important message, but her friends were waiting for her so she
    *a. put it off until later.
    b. had them go ahead and said she would be with them later.

14. When Muriel discovered that she would not be permitted to join the club if they found out that her parents were foreign, she
    *a. tried to hide the fact.
    b. did not care to join.

15. The doctor had advised Anne against drinking. At the party, when they said she was just afraid, she
    *a. drank to show she was not afraid.
    b. did not let their teasing bother her.

16. Rosalind wanted a new dress for the dance but she had to meet the payments on her furniture or lose it. She finally decided
    *a. the dress was most important.
    b. the furniture was most important.

17. Hannah had not been able to go to the movies in months. The evening that she planned to go her little son had a cold. She
    a. decided to stay home.
    *b. felt it wasn't serious and went to the movies.

18. When Alice read in the paper that a criminal had been freed through the arguments of a smart lawyer, she
    *a. was pleased with his cleverness.
    b. felt that this was poor justice.

19. Florence was new in town. She was anxious to make some friends because
    *a. they could be of use to her.
    b. she liked to be with people.

20. If Eleanore told her parents the truth about what had happened they would be extremely angry and upset. She debated about what to do and then she decided
    a. they ought to know.
    *b. to keep it from them.

*Choices considered deviant based on pilot study.

21. Margaret's sister had left her purse on the table in the library. When she returned her purse was gone. Margaret felt that her sister had been so careless that

*a. Margaret hid the purse to teach her a lesson.
b. her sister was to blame for the theft.

22. Marsha gave her grocer a $5 bill. He mistakenly thought she had given him $10, and so he gave her $8 change. She discovered this when she reached home and

*a. wondered how to use the extra money.
b. called the grocer to tell him.

23. June was informed that she had to pay $25 to the city for a personal property tax on her car. She felt that this was outrageous, and

*a. would not pay it.
b. wrote them a letter telling how she felt.

24. Rose had been reading about a criminal who had been evading the police. His tactics were so clever that she

*a. admired him.
b. thought he was very dangerous.

25. Carol felt that so many of the laws were wrong that

a. they needed to be changed.
*b. they were not worth obeying.

26. Nancy had an invitation from Bob to ride in the motorcycle race. When Bob asked if she would come she

a. said she would rather not.
*b. accepted.

27. Mary was going to the movies. Before she came up to the ticket office she noticed that a side door was open, so she

*a. went in.
b. notified an usher.

28. When Tom's wife left for the country he asked Barbara to spend the evening with him. She

a. did not accept.
*b. said she would love to come.

29. Vera was walking home late one night, when she noticed that someone was following her. She

*a. wondered who it might be.
b. walked more quickly and looked for help.

30. When the girls dared Ellen to ring the fire alarm she

*a. did.
b. refused.

*Choices considered deviant based on pilot study.

31. Nora was lonesome, but she knew that Ralph's reputation was bad, so when he called for a date she

*a. suggested a place where they wouldn't be known.
b. refused.

32. When Irene noticed that her boy friend Jim had a gun in his pocket she

a. asked him about it.
*b. thought they might have an exciting adventure.

33. A fire had started in the house across the street. When Lorraine saw the fire engines she felt

*a. thrilled and excited.
b. sorry for the tenants.

34. Thelma's sister had asked her to do the dishes before she joined her friends, as she was feeling ill. Thelma was already late so she

*a. said she didn't have time.
b. told her friends she would join them a little later.

35. Edna felt bored with everything, so she

*a. looked for some excitement.
b. went to the movies.

36. It was a very warm day, and Gertrude's girl friend suggested that they take off their clothes and swim in an isolated pond they had discovered. Gertrude

a. agreed.
*b. did not want to undress.

37. Each one in the group had agreed to imitate their favorite heroine. Belle

*a. did not like to make believe.
b. agreed.

38. Jessie felt blue. Her friend told her to pretend to be gay. She

*a. thought this was a fine idea.
b. said she couldn't when she felt unhappy.

39. Marilyn had accepted Jack's proposal. Now that she was going to be married she felt

a. pleased and excited.
*b. uncertain and afraid.

40. When Carrie's boss hired her he told her she would have to work overtime when it was necessary. She

*a. said she would not care to do this.
b. agreed.

*Choices considered deviant based on pilot study.

It may be noted that while most of these items established conflict situations, some items tapped specific attitudes; e. g., attitudes toward crime, concepts of friendship, attitudes toward the problems of others, attitudes toward danger and dangerous adventures, emotional response in a crisis situation, reflection of interests, attitudes toward nudity, capacity for fantasy play, intensity of feelings, attitudes toward marriage, and attitudes toward existing conventions.

Testing Procedure

The completion and multiple choice items were administered to both groups with a one-week period intervening. The completion items were administered first to avoid the possible influence which might obtain if the choices on the multiple choice test were seen first. The instructions for the completion items were: *Complete the following sentences as rapidly as you possibly can as you will have a limited time in which to work. Do not omit any of the statements.* It was felt that if the instructions were as non-specific as possible, they would offer fewest suggestions of anticipated responses.

Although the instructions implied a specific time limit, none was actually imposed. The element of time was included in the instructions in order to obtain the most immediate responses to the items, rather than a reaction that was carefully thought out. The time for completion of the test, however, was recorded for each subject.

On the multiple choice test, the instructions read: *Encircle the letter preceding the phrase which you believe would best complete the sentence. Do not omit any of the statements.* A record of the time for each subject was also kept.

Statistical Procedure

On the multiple choice test, the percentage of occurrence of deviant responses for each item was determined in each group. The reliability of the difference between percentages was then calculated for each item. Small sample techniques were used throughout.

With the completion test, it was necessary first to set up criteria for a deviant response. The responses to each item were categorized and each category was then tabulated. The frequencies with

which these categories appeared in the psychopathic group as compared to the normal group were inspected. Where inspection clearly showed that an item would not yield a difference between the two groups, it was eliminated. Fourteen items (items 4, 12, 16, 17, 19, 22, 23, 27, 28, 30, 33, 37, 39 and 40) were eliminated in this way from the original list of 40 items. For the remaining 26 items, a deviant response was taken to be any response which by inspection had occurred more frequently in the psychopathic group. The same statistical techniques were then employed as with the multiple choice test.

Results

Table 1 indicates the results of the item analysis of the multiple choice test. Of the 40 items, only two (items 36 and 38) were found to differentiate significantly between the two groups at the 5 per cent level. Analysis of this table further indicates that more items are answered in a deviant direction by normals than by psychopaths, although the differences between the two groups for most of the items are not reliable.

Table 1. Significance of Items on the Multiple Choice Test

Item	Normals (N=20)		Psychopaths (N=22)		
	%*	SE	%*	SE	t
1	55	11.4	41	10.0	0.93
2	15	8.2	14	7.6	0.12
3	5	5.0	0	0.0	1.00
4	0	0.0	14	7.6	1.79
5	0	0.0	0	0.0	0.00
6	5	5.0	9	6.3	0.51
7	0	0.0	0	0.0	0.00
8	25	9.9	14	7.6	0.91
9	20	9.2	9	6.3	0.98
10	10	6.9	32	11.4	1.64
11	0	0.0	9	6.3	1.44
12	0	0.0	5	4.5	1.01
13	5	5.0	0	0.0	1.00
14	0	0.0	0	0.0	0.00
15	0	0.0	5	4.5	1.01
16	0	0.0	0	0.0	0.00
17	15	8.2	0	0.0	1.83
18	5	5.0	5	4.5	0.07

*Percentage of subjects giving deviant responses.

Table 1 (Continued). Significance of Items on the Multiple Choice Test

Item	Normals (N=20) %*	Normals (N=20) SE	Psychopaths (N=22) %*	Psychopaths (N=22) SE	t
19	5	5.0	9	6.3	0.51
20	10	6.9	18	8.4	0.75
21	80	9.2	77	8.9	0.21
22	0	0.0	0	0.0	0.00
23	10	6.9	0	0.0	1.45
24	10	6.9	0	0.0	1.45
25	5	5.0	0	0.0	1.00
26	40	11.2	27	9.5	0.87
27	0	0.0	14	7.6	1.79
28	10	6.9	9	6.3	0.01
29	25	9.9	9	6.3	1.36
30	0	0.0	0	0.0	0.00
31	5	5.0	9	6.3	0.51
32	5	5.0	0	0.0	1.00
33	20	9.2	9	6.3	0.98
34	5	5.0	9	6.3	0.51
35	20	9.2	23	8.9	0.21
36	75	9.9	0	0.0	7.58
37	60	11.2	32	11.4	1.76
38	50	11.5	82	8.4	2.23
39	20	9.2	18	8.4	0.15
40	5	5.0	5	4.5	0.07

*Percentage of subjects giving deviant responses.

Table 2 indicates the results of the item analysis of the 26 items of the completion test, after the 14 obviously non-discriminating items were eliminated. Here, nine items (items 8, 13, 18, 21, 24, 26, 32, 35 and 36) were found to have statistical significance in differentiating between the two groups. Except in the case of item 7, some of the controls gave deviant responses to all other 25 items. This varied from as low as 5 per cent of the normals for one item to as high as 77 per cent on another item.

Table 2. Significance of Items on the Completion Test

Item	Normals (N=22) %*	Normals (N=22) SE	Psychopaths (N=22) %*	Psychopaths (N=22) SE	t
1	50	10.8	73	9.5	1.58
2	18	8.4	32	10.0	1.04
3	23	8.9	45	10.9	1.61
5	27	9.5	55	10.9	1.89
6	18	8.4	23	8.9	0.37
7	0	0.0	14	7.7	1.77
8	32	10.0	68	10.0	2.57
9	18	8.4	41	10.9	1.65
10	23	8.9	36	10.4	0.99

*Percentage of subjects giving deviant responses.

Table 2 (Continued). Significance of Items on the Completion Test

Item	%*	SE	%*	SE	t
	Normals (N=20)		Psychopaths (N=22)		
11	18	8.4	23	8.9	0.37
13	27	9.5	60	10.4	2.29
14	18	8.4	36	10.4	1.36
15	9	6.3	27	9.5	1.59
18	9	6.3	60	10.4	4.14
20	77	8.9	95	4.5	1.82
21	18	8.4	60	10.4	3.09
24	5	4.5	32	10.0	2.49
25	18	8.4	23	8.9	0.37
26	50	10.8	82	8.3	2.33
29	14	7.6	23	8.9	0.78
31	9	6.3	14	7.7	0.46
32	14	7.6	68	10.0	4.34
34	9	6.3	23	8.9	1.25
35	5	4.5	32	10.0	2.49
36	68	10.0	95	4.5	2.49
38	32	10.0	55	10.9	1.54

*Percentage of subjects giving deviant responses.

In order to determine whether the number of significant items on the completion test (nine) was reliably greater than the number of such items on the multiple choice test (two), this difference was statistically analyzed and found to be a real difference that did not occur on a chance basis (Table 3).

Table 3. Reliability of Difference in Number of Significant Items on Completion and Multiple Choice Tests

Completion Items (9)		Multiple Choice Items (2)		
%*	SE	%*	SE	t
22.5	6.30	5.00	3.10	2.49

*Percentage of significant items out of total of 40 items.

The nine significant items on the completion test were re-applied to the two groups by scoring these items as a test. A score was derived for each subject, and the mean score for each group computed. A highly significant difference was found between the mean scores of the two populations (Table 4). Scores for the normals

Table 4. Reliability of Difference Between Mean Score of Normals and Psychopaths When Using Significant Items of Completion Test

Normals (N=22)			Psychopaths (N=22)			
Mean	SD	SE	Mean	SD	SE	t
2.23	1.09	.24	4.77	1.35	.29	6.72

ranged from 0 to 5, with a mean at 2.23. Only three subjects received a score above 3. The psychopathic group, on the other hand, received scores ranging from 1 to 7 with a mean of 4.77. However, only three members of this group received scores below 4. The overlap between the two groups is obviously very small, resulting in a statistically significant difference between means.

A reliable difference was also found when the two significant items of the multiple choice test were applied to both groups as a test in the same manner as before (Table 5). This, however, would

Table 5. Reliability of Difference Between Mean Score of Normals and Psychopaths When Using Significant Items of Multiple Choice Test

Normals (N=20)			Psychopaths (N=22)			
Mean	SD	SE	Mean	SD	SE	t
1.20	.60	.14	1.82	.39	.08	3.85

appear to be a statistical artifact since a difference between a mean of 1.2 items and 1.8 items could hardly be conceived practically as a real difference. The ranges of scores for the normals and psychopaths are presented in Table 6. Considerable overlap is apparent, as would be expected from the narrow range of scores.

Table 6. Range of Scores for Normals and Psychopaths Using the Significant Items of the Multiple Choice Test

Score	Number of normals	Number of psychopaths
0	2	0
1	12	4
2	6	18

The mean time for finishing the completion test was 22.7 minutes for the normal group and 25.0 minutes for the psychopathic group. For the multiple choice test, the mean time was 6.8 minutes for the normals and 7.0 minutes for the psychopathic group.

Because of the possible clinical usefulness of the completion test, the deviant responses given by the psychopathic group to the 20 most discriminating items follow. These include the nine items found significant at the 5 per cent level as well as an additional 11 items showing a tendency toward statistical significance.

Item I. *Friend at the office*

Refused to help.
Refused but said she would stay another time.

Item 2. *Bad company*

They fascinated her.
They were fun to be with.
They were exciting.
They did not influence her behavior.

Item 3. *Taxes*

Did not pay her taxes.
Tried to avoid paying but failed.
Tried to avoid paying and was sorry.

Item 5. *Blood Test*

Did not get married.
Delayed getting married.
Married without the test.
Ran away to get married.

Item 7. *Letter*

Opened the letter.
Left it there.

Item 8. *Love*

Left the girls.
Started to cry.
Felt very shy.
Became annoyed.
Thought the girls were jealous.

Item 9. *Boyfriend*

Couldn't bear the thought.
Felt very unhappy.

Item 13. *Mother*

Left without telling her mother.

Item 14. *Club*

Lied about her parents' background.
Began to hold a grudge against foreigners.

Item 15. *Drinks*

Took a drink.
Felt badly and left the party.

Item 18. *Lawyer*

Thought the criminal was lucky.
Was frightened and upset.
Became interested and looked up the lawyer.

Item 20. *Parents*

Told her parents.

Item 21. *Purse*

Scolded her.
Mistook it for her own.
Thought she would scare her by hiding it.

Item 24. *Criminal*

Felt afraid for herself and the community.
Helped to find out where he was hiding.

Item 26. *Motorcycle*

Accepted the invitation.

Item 32. *Gun*

Reported it.
Told someone.
Would not see him again.
Told him to get rid of it.

Item 34. *Dishes*

Helped until it was time for her to leave.
Did not do the dishes.

Item 35. *Bored*

Looked for new activities (unspecified).
Gave up and did not care.
Left home for a while.
Went to a dive for excitement.

Item 36. *Swimming*

Refused.
Went home for bathing suit.

Item 38. *Pretending*

Tried and found it worked.

Discussion

The sentence completion test is apparently more sensitive to differences in judgmental evaluations between normals and psychopaths than is the multiple choice test. It is possible that a new multiple choice test, using the responses found to be deviant on the completion test, might reveal differences as adequately. The alternatives in the multiple choice items were developed, however, after several trials with a small hospitalized psychopathic population so that the deviant and non-deviant choices were based on pre-testing experiences.

The differential capacities of these two instruments to detect differences in judgment between psychopaths and normals would

imply that the psychopathic girl has learned social values and is able to recognize them where they are overtly presented (multiple choice test) but where the psychopath is thrown upon her own resources in resolving a conflictual situation (completion test), these learned values are not readily available as guides, apparently because of their superficial incorporation into the personality structure.

The psychopathic girl attempts to outdo the normal in "normality" in that she selects fewer deviant responses on the multiple choice test than does the normal herself; but she does not do so where she has no external clues. In the latter situations, clear-cut differences in judgment between the normal and the psychopath become apparent. Cleckley's hypothesis would then seem to have been substantiated to the extent that there are measurable differences between the judgment of psychopaths and normals, which differences require sensitive measuring devices for their detection. Grosser instruments of measurement simply reaffirm the popular impression that the psychopath is similar to the normal in his judgmental evaluations. More sensitive measures, however, reveal real differences.

Although it was originally postulated that the psychopathic girl would be slower in her ability to complete the test situation because of its conflictual nature, this was not substantiated. Although the mean time for the psychopaths was greater on both tests, the differences were not significant.

A comparison of the nine significant items of the completion test with their multiple choice counterparts indicates that some of the responses originally considered deviant in the latter were found to be non-deviant in the former (items 8, 24, and 32). In item 8 (The girls were teasing Jane about being in love. She became embarrassed and . . .), it was felt that the psychopath would, when in an embarrassing situation, deny her true fee'ings rather than express them. Actually, it was found that her tolerance for embarrassment is low, but she does not attempt to conceal her feelings, at least in this situation of denying being in love. Furthermore, it was felt that in item 24 (Rose had been reading about a criminal who had been evading the police. His tactics were so clever that she . . .) the psychopath would identify with

clever exploits of the criminal, but here one finds that she expresses fear and a desire to have the criminal apprehended. In item 32 (When Irene noticed that her boy friend Jim had a gun in his pocket she . . .), it was also felt that the psychopath's craving for adventure would overwhelm the rational fear of someone possessing a gun; but, instead, this reaction does not occur, and on the contrary the psychopath reveals the shallowness of her love relationships. These findings would suggest that some of the current conceptions about the psychopathic personality may be in need of revision and further emphasizes the need for research with this group.

Examination of the significant items of the completion test permits the following description of the female psychopath:

She possesses low tolerance for frustration and is easily irritated. She is fearful and emotionally unstable. She tends to adopt paranoid ideation as a defense against a seemingly hostile world. She is punishing and lacking in empathy for others. She prefers physically dangerous sports and craves excitement. Love relationships are superficial and easily disrupted. She is irresponsible and lacking particularly in a sense of responsibility toward parent figures. Home ties are shallow. She has anxiety about exposing her body to others.*

An examination of other items which approach statistical significance permits a further extension of the given picture. Loyalty and devotion to others are minimal; and consequently, friendships and love for siblings are shallow. The psychopathic girl prefers the company of psychopaths to others whose attitudes differ from her own. Where any loophole exists for escaping social responsibility, she will utilize it. Marriage is fraught with danger. Negative feelings are sooner suppressed than expressed, so that she will assume a role which is the obverse of her true feelings. She may develop attitudes of prejudice and intolerance in order to seek a scapegoat for her frustrations. Teasing by others is tolerated with difficulty and she will attempt to disprove accusations of fear. There is a fear of physical pain. Her emotional experiences, of whatever sort, are superficial.

*Kinsey et al. (Ref. 7) found less nudity in lower social and economic classes than in higher levels. The present finding with the psychopaths may therefore be the result of social and economic level rather than intrinsically a feature of psychopathic attitudes.

In spite of its apparent sensitivity, the completion test is not yet perfected for use as a standardized measure of female psychopathic judgment. The number of subjects used is too small, and the age range of the sample too narrow, to permit the setting up of tentative norms. Furthermore, many of the significantly differentiating items occur with great frequency among the normals, indicating that further refinement of the test items is necessary. Of necessity, these limitations confine the application of the present test. However, the test may be useful in its present form when interpreted qualitatively, particularly when interpretations are limited to the 20 items found most significant. (The deviant responses for these items have been listed.) The test may also prove useful in further research, particularly in determining differences between psychopaths and other psychiatric groups. A similar test can be constructed for males. The instrument should receive further study as a diagnostic technique. It meets the general needs of a clinical tool—it is brief, it can be scored with reasonable objectivity, and it is projective in its nature.

Summary

This study was undertaken to determine whether differences in judgment between psychopaths and normals could be demonstrated, a hypothesis basic to Cleckley's concept of "semantic dementia." The study was based on the premise that the psychopath, although capable of learning social values, is unable to utilize these values where a conflict arises between primitive needs and social goals. A normal control group of student nurses and a comparable experimental group of psychopathic personalities were compared on two forms of a 40-item test which was specifically designed for this study to elicit judgments and attitudes in conflict situations. The two forms were identical in content, except that one was a multiple choice test and the other was a completion test. Both forms were administered to each group. The completion test proved more sensitive in demonstrating real differences between psychopaths and normals, and thus would confirm the hypothesis that social values can be recognized by the psychopath but are not so significant in controlling judgmental evaluations in conflict situations where the psychopath is thrown upon her own resources.

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EDITORIAL COMMENT

000-x41 WITH PATHOLOGIC SEXUALITY

There is a quantum of grandiosity, or at least of egocentricity, in proclaiming that man's most difficult problems are in one's own field of endeavor; but the psychiatrist seems justified at times in asserting precisely that. What is normality? What is psychopathy? What is mental illness in general? What is cure? For these and many other questions, we can apply general and specific tests which can ordinarily lead to agreement on reasonably sound judgments. Yet we doubt if the quiz-master would accept any of our conclusions as categorical answers.

The difficulties multiply in something like geometric progression as the giving of professional advice is involved in answering these questions. And they reach a particularly distressing pitch when a solution is asked for such general problems as must be answered by "mental hygiene" or "improved public education." We are minded of this situation by a number of recent unrelated occurrences. The states of New York and New Jersey both embark on new legal procedures involving psychiatric study and treatment of sex offenders; a perturbed clergyman asks a department of mental health what can be done in the case of an adult homosexual, discovered in perverted practices with small boys but permitted to leave town and carry on his anti-social activities elsewhere; the September 1950 *Coronet* features an article on the "New Moral Menace to Our Youth," by which the author means overt homosexuality. Somehow, many people seem to expect that psychiatry can tell them what to do about it. Yet psychiatry at present can answer only in terms of partial solutions or of suggested lines along which action can be taken with no promise of specific results.

The paraphilias are the problem of psychiatry certainly, if they are the problems of anybody. To be sure, their existence raises social, legal and moral questions; but so do tuberculosis, leprosy and schizophrenia raise such questions. The treatment of paraphiliacs is primarily a medical problem with secondary social, moral and legal facets. This viewpoint encounters difficulties which are not inconsiderable. There is, first, the far from easy

matter of persuading the guardians of our laws and our morals—and the general public—that sexual aberrations are a medical problem. There is, second, the question of obtaining general co-operation, such as is given in other public health matters, in the working out of whatever changes in attitude and procedure result from recognition of sex perversion as a primarily medical problem. And there is, finally, when recognition and co-operation are accorded, the extraordinary task of working out a psychiatric public health program on which almost the sole point of professional agreement is that the problem is psychiatric.

The etiology of the sex aberrations is still in dispute; there is at least a small minority who consider them hereditary; others hold them, at any rate, congenital; others trace them to endocrine malfunction of unspecified origin; probably the majority (certainly a very large minority) consider them as neurotic manifestations—which last conclusion leads us to the endless debate on environmental versus constitutional etiological factors. It must be emphasized that this is psychiatric medical opinion; what general medical opinion may be is far from easy to say, but one suspects it is closer to that of the general public, which regards the paraphilias as legal and moral, not medical, problems. This view is reinforced, and the psychiatric problem intensified thereby, as a result of the fact that large-scale treatment for sexual deviants has seldom, if ever, been adequately tried and that individual treatments have been successful in relatively few reported cases. There are notable and important exceptions; this journal has published reports from more than one therapist of what appear to be completely successful treatments of homosexuality by psychoanalysis; and other forms of psychotherapy have been employed with some promise in various perversions. Our lack, or failure if one prefers, has been no more spectacular here than that of the neurologist with poliomyelitis or the internist with leukemia. When psychiatrists meet the familiar, though unjustified, reproach of their general futility, they might note that recognition of a disease does not imply ability to cure it, a matter sufficiently well-recognized in other medical fields than the psychiatric. And they might note specifically that their progress toward treatment of sex deviations would not compare unfavorably with that toward cure of leukemia, and is considerably greater than any progress made in the treatment of chronic nephritis.

We are, however, concerning ourselves less here with the problem of treating the sex deviant or sex criminal than with the problem of society in relation to the deviant, with the effects of the deviant on normal society, with what can be done to ameliorate these effects, with the attitude normal society should assume toward the deviant, and with what society in general, not the medical profession, might do to improve the lot of the deviant. We are dealing here with a complex of attitudes, prejudices and reactions inculcated in our society for centuries.

Coronet's article, by Ralph H. Major, Jr., designates homosexuality as a "New Moral Menace to Our Youth." Overt homosexuality, if not as old as time, is immemorially old. The oldest civilizations bear witness to it; and it probably antedates all civilization —judging from the behavior of domestic animals, overt homosexuality may be as old as mammals. This particular deviation flourished in ancient Greece; it was common among the Viking seafarers; it had an almost open revival in modern Germany in the early days of Naziism. There are many references to it in the Bible where men are forbidden, under penalty of exile, to "lie with mankind, as with womankind: it is an abomination"; and "neither shalt thou lie with any beast to defile thyself therewith: neither shall any woman stand before a beast to lie down thereto; it is confusion." The accounts of Greek and Roman civilization are replete with descriptions of and attitudes toward perverse sexuality.

With all respect to the motives, sincerity and able reporting of the *Coronet* article, the moral menace the author finds is not only not new at all, it is rather obvious. For reasons discussed much more than adequately previously, including discussions in THE PSYCHIATRIC QUARTERLY, we think that many of the inferences commonly drawn from the famous Kinsey report are unjustified. We also think that many of the current views of abnormality itself including some expressed by orthodox Freudian psychoanalysts, may be interpreted so as to convey more fear and alarm to people in general than is justifiable. That is, we think the situation confronted by ourselves and our children does not differ substantially from that confronted by our parents and grandparents—when appropriate allowances are made for the greater visibility of abnormality in today's urban, as contrasted with yesterday's rural, environment.

It is only in this sense of greater visibility and higher concentration under urban conditions, that we can consider the menace of abnormality a new menace. It is new, in the last two or three generations perhaps, in the one important aspect that, in the urban situation, the sexually abnormal person makes more contacts than in rural surroundings. Whether more harm is done under these conditions by the more widespread but more casual contacts of the urban homosexual than by the fewer but much closer relationships in the rural setting is an interesting but unanswerable question. It is also a profitless question, for present urgency is less a matter of whether present evil is greater than it used to be, than of whether it is widespread enough to constitute a social menace and justify planned, concerted efforts to combat it. Discussion of this point, however, seems justified if consideration is not to be distorted by various inferences made from the Kinsey report and other sources concerning the prevalence of overt homosexuality, concerning the supposed sanction for their practices derived by homosexuals therefrom, and concerning the hysteria evident in those who see our youth confronted by a "new" menace. We think, at this stage of our social and psycho-social evolution, we can do better to recognize simply that the present menace is such that it does call for more intelligent efforts on the part of society than have been made to combat it in the past, regardless of such factors as relative prevalence, moral self-justification or moral revulsion. We think such efforts should have been made long ago, generations ago, or centuries ago.

We think that first, as has already been indicated, we must obtain recognition of the paraphilias as primarily constituting a medical—that is, a public health—problem. For the legal aspect, we have learned that, in the paraphilias as in other offenses, punishment—however called for as a practical matter—is not sufficient as a deterrent. For the religious aspect, we think it might be noted that the firm Biblical prohibition, which has been in the Judeo-Christian religious inheritance for the last 3,000 years, can be effective only when a person knows what sorts of things, if not what specific acts, are prohibited. All this brings up the question of education, which, indeed, is also involved when alternatives to legal punishment are under discussion. And education in this field is a public health matter—a question of medical concern.

The matter of education is one to be approached with the greatest caution. The questions of by whom, when and how information about normal sex life should be given to children are largely still the subjects of controversy. The question of information about sex abnormalities raises and intensifies all the original problems again. It is a question which comes up every time such an abnormal person as the one whose activities partly suggested this discussion is asked quietly to get out of town. It is a question which creates new consternation and horror every time some sadist abuses and murders a child. And it is a question at which most of us shudder, then close our ears and our understandings.

Against the sadistic, potential murderer, the stern and repeated warning to children to beware of strangers, that they may not be nice people, is plainly and pitifully insufficient. The child knows only too well to the contrary. "But he *is so* a nice man; he gives us marbles and plays with my doll and buys us candy; and he *isn't* a stranger; I've known him for weeks and weeks." We see enough child-murders and other tragedies to demonstrate the prevalence of this childish reasoning.

If threats and warnings are ineffective against the fortunately uncommon, violent type of sexual pervert, how do precisely no warnings at all protect against the non-violent exhibitionist or the commonly-met homosexual? We know of no way to get a clear and satisfying answer to this question. We have never heard of a questionnaire series which covered it adequately; we have never seen a series of data of any significant size, extracted to cover this point, from case histories. The best we can do at the moment is to present a few scattered examples, taken at random from "normal" and "abnormal" adults' reminiscences, and attempt a guess at current sexual mores from them.

A middle-aged man may recall a state of supreme ignorance in childhood—during which he encountered homosexual advances which he met with equal parts of incomprehension and disgusted disinterest. A woman remembers that when she was a little girl she was taught to masturbate by the daughter of a re-respected neighbor. Or one may remember the warning never to play with the boy across the street. "He was caught tampering with younger boys." One must not talk about the boys' club leader who left town; he invited boys to his apartment—which to the non-comprehending seems a friendly enough idea. And one does not

frequently relate to parents, or anybody else, the tales from well-thought-of childrens' camps or schools for adolescents concerning alleged perverted sexual activities. And what about the young girl whose parents ignorantly encourage her to fall in love with that "lovely boy" neighbor—a boy whom any reasonably informed person would recognize instantly as an overt homosexual?

One could add, to material like this, voluminous notes from our child guidance clinics; but they would be subject to the objection that clinic material is not necessarily representative of normally-adjusted children's experiences, and to the further objection that children are often less than frank—even with clinic workers. Furthermore, what we are discussing here is not the aberrant history which precedes behavior disturbance or delinquency, but the common contacts—not unlike those cited from the past—which children cannot avoid making with the sexually abnormal in our largely urban present-day society.

If we are not joining with those who are sounding the alarm sirens over this situation, it is not only because, as has been already recited, the existence of the homosexual menace is not new, but because we also doubt profoundly that anything so serious as overt homosexuality can result from childhood homosexual seduction—unless there is already a psychosexual turn in that direction. That it can make overt homosexuals of some latent homosexuals, we have no doubt; but the problem of latent homosexuality is not necessarily the problem of the normal child. It is also a problem which cannot be discussed here, for it comes within the province of psychiatric medical treatment, rather than in that of psychiatric public health.

What we are interested in here is the average, normal child and the possibility of protecting him from homosexual advances. The normal adult heterosexual presents few threats to the development of the child; he has presumably passed the stage where intercourse with children, sex play with children, exhibitionism to children, or peeping at children has attractions for him. The adult homosexual, however, is in a stage of arrested psychosexual development; he is not far above the child level—a matter not only of theory but one attested by empirical evidences. If most homosexual adults are attracted chiefly to other adults—which may be debatable—many are still attracted to children; and more still are attracted to adolescents. The impulse to seduce is, like homosexual-

ity itself, characteristic of arrested development. The normal child's danger is in seduction from occasional contacts with homosexual adults, and the effects of such contacts may not be inconsiderable.

If major perversions are not ordinarily produced in normal children by homosexual contacts, other disturbances of varying degrees may be. Intensified guilt and anxiety are almost certain reactions, and full-blown neuroses may follow. Later, normal sex relations may be impaired by fear, potency disturbances or frigidity. Society may label the ignorant victim homosexual, as well as well as the aggressor, attaching all the homosexual stigmata. And it may be pertinent to note here that many psychiatrists appear to accept incidents of homosexual seduction in childhood as indicating active homosexual trends in adult patients and calling for treatment accordingly. We think, however, that all this discussion is to minimize the damage an active sexual aberrant can cause in a community. We know of no way to estimate the incalculable suffering in anxiety, grief and self-condemnation suffered by the parents of the children whom aberrants encounter.

For this reason among many, we think measures to combat the effects of sexual abnormalities must be addressed first of all to adults—that is to parents. That is, the educational efforts, which we conceive to be the only measures now, or likely to be, practical, must be addressed primarily to parents and to parent surrogates —teachers, club leaders, and the clergy.

We believe the ordinary adult reaction to the perversions, particularly homosexuality, is unrealistic, based largely on fear and misinformation. We think something survives of the ancient prejudice that the homosexual, along with other offenders against the moral code, has sold his soul to evil—a fantastic idea today but one well-founded enough when the pervert was the priest or servant of malevolent pagan deities. We think the overt homosexual is generally considered wilfully wicked, whereas, in fact, he suffers from emotional disorder; we think the banishment he often suffers from normal society is often a cruelty unjustified by the need to protect society; we think irrational fear of his uncanny disorder is one of the greatest handicaps to medical treatment of it; and we think that this general reaction of society is one of the most important of the many reasons for the overt homosexual's present menace to our children.

We protect our children reasonably well against tuberculosis—we isolate the active tuberculosis patient—we are generally able to see that children keep a distance from whooping cough, scarlet fever or measles. We take what precautions we can against poliomyelitis. But we do little that is intelligent about the psychosexual disorders. We think a useful first step in any educational campaign would be education of the parents to recognize the recognizable aberrations. Unfortunately we know of no way to recognize the most dangerous—sadism in sexual relationships—although the psychiatrist can often see signs and symbols. But it is not at all beyond the capacity of the average parent to identify a person who exhibits the tastes and mannerisms of the opposite sex, along with decided preference for the company of his own. This by no means describes all, or even a majority of, homosexuals. It will include a number not homosexual, and include some homosexuals who are innocent of harmful influence; but it is at least a workable rule of thumb for beginning the selection of persons with whom children should not be allowed to associate.

To guard a child's associates is by no means to perpetuate society's present policy of ostracism. We do not ostracize the tuberculous or the measles patient; but we do try to keep our children away from them. The exercise of similar intelligence would do much to protect children against psychosexual disorder. And this does not imply that such things as homosexuality are contagious; so far as we know they are not, but to expose a child to them is nevertheless to expose him unnecessarily to psychic danger.

We think, second, that parents should learn that exposure to sex aberration is not equivalent to eternal damnation. We think they should be taught that an emotionally well-integrated child is no more certain to contract permanent injury from exposure to perversion than an "immune" child is to contract disease from exposure to diphtheria. The problem here is basically one of building up good emotional integration in the first place. In the second, it is one of averting parental hysterics, reproaches, condemnations and other actions calculated to augment feelings of guilt, remorse and anxiety in the child. We suggest that if educational material could be made readily available here to persons in contact with the problem of homosexual influence on children, much direct and plainly-apparent good might be accomplished.

We think, too, the spirit of vengeance against the adult offender is something to be curbed. For the child, hate is something to aggravate an uncomprehended injury. For the parent, hate serves nothing for amelioration or reparation. For the overt homosexual himself, various measures, such as social amelioration of his lot, medical treatment, or institutionalization may be indicated. That is not the subject of this discussion; though it is a subject of very present importance, as evidenced by legislation in regard to sex offenders in this state, New Jersey and elsewhere.

We think finally that the child himself must some day, somehow, have the information he needs for his own protection. It may be given today in some enlightened families; we hope it will be given in many more tomorrow. We would recoil in horror from the proposal to send a boy to Korea who did not know how to work the bolt of his carbine. We think it equally horrible to send a child into a society where he may be menaced, without a weapon (knowledge) with which to protect himself.

We think we might add here that it would do no harm for parents, teachers, clergymen and others, regardless of their present state of information, to exercise somewhat more active interest in the adults with whom their children associate, even casually. It is not enough that people be "nice," for many homosexuals, females as well as males, are very nice people indeed. The criterion is less whether they are socially-nice people than whether they are emotionally-normal people. And good manners, courtesy, consideration, even sensitiveness to other people's needs and feelings, are not reliable distinctions. Boys' organizations, social settlements, other forms of good works, have been plagued for many years by abnormal persons selected by such unreliable standards.

All this is but little in the way of answer to the clergyman who wanted to know what to do about the homosexual who "left town" after perverse activities with a group of youngsters. We cannot tell him what to do about the overt homosexual who eventually will probably go to jail, which will not benefit him or other people. But we have endeavored to outline some of the things which can be done about the boy victims, their parents and others in a position to influence children's associates. We have also endeavored to outline scantily our ideas of the painful process which must be undergone to minimize such activities in the future. We think future efforts must be turned toward treatment and rehabilitation

of homosexuals—which we have not discussed here—and, more importantly, toward a public health program of complete sexual education, which we have tried to outline.

We do not believe we can say here: "You must do thus and so." Psychiatry must work with people, not against people. A primary requirement for our children is the proper early emotional environment which will cause them to become well-integrated. And we think it is enough of a wrench for parents—long as the necessity has been preached—to end tales of babies brought by the stork, carried in the doctor's bag or found under the cabbage leaf, without present insistence on child-education in the sex perversions. But we think the essential sex education for which psychiatry has been contending—whether in home, church or school—should include at least warnings of the dangers from sexual psychopaths that people must face. And we think too—again—that the need for adult education on the subject is imperative. All of which is to say that this is a long job, not one for today's or tomorrow's solution.

We all wish for a better world for our children, one of security, peace, normal joy in growing, loving and living. Failing such a world, we may invent one: a world without real or fancied unpleasantness, a world of Santa Claus, the stork and unfailing rewards for good behavior. And often, where our children are concerned, we live in this invented world ourselves, take ever-renewed youth and joy in their innocence and ignorance. It is a very unpleasant task to destroy this world, even more unpleasant for ourselves, we think, than for our children. But Santa and the stork—and the substitutes of later childhood—are symbols; and happiness is not a simple reward for good behavior. As in the case of the elementary "facts of life," where there is well-loved symbolism, so in the case of the aberrations, where there is no comparable symbolism, the world we build for our children does not always resemble the real one.

We fail to see at the moment any symbolism or other euphemistic procedure which will protect a child against such a harsh reality as the menace of sex perverts. The raw truth—in the hands of parents now, perhaps in the child's hands later—is the only safe bulwark. To battle a raw reality with the fairy-tale weapons of innocence is to rush to defend ourselves against the atomic burst—with bows and arrows.

BOOK REVIEWS

Principles of General Psychopathology. An Interpretation of the Theoretical Foundations of Psychopathological Concepts. By SIEGFRIED FISCHER, M. D. 315 pages. Cloth. Philosophical Library. New York. 1950. Price $4.75.

Dr. Fischer, clinical instructor in psychiatry, University of California, and formerly professor of psychiatry and neurology, University of Breslau, has presented in this book his interpretations of psychopathological phenomena. He defines his subject as "The science of the regularities of pathological-mental happenings." Although he does not specifically so state, his work would appear to be a textbook.

Part I covers over one-half of the book and pertains to fundamental psychological concepts such as perception, thought, memory, attention, consciousness, apperception, orientation, emotion, volition, intelligence, fantasy, empathy and language. The major emphasis is on pathology. His approach to these concepts reminds your reviewer of Titchner.

In Part II, the author attempts to co-ordinate the specific concepts defined in Part I into a "comprehensive or dynamic psychology." He describes the various channels through which one can understand the reasons for certain psychogenic-pathological conditions. He admits that certain symptoms shown by the psychotic are not comprehensible. His explanations, however, do not add new information about psychodynamics.

In Part III the author describes, too briefly, symptom complexes or syndromes.

Part IV contains descriptions of the abnormal personality. The author defines personality; describes the factors which make up the personality and states that if one cannot find bodily changes to explain a defect in personality, we look to the environment "which can render such transformations comprehensible . . . If a change is not comprehensible, we seek to make it so by uncovering neurotic mechanisms, i. e., by uncovering the unaware. If we do not succeed in doing this, then we speak of a mental disease or a psychosis." In contrasting the psychopathic personality and the neurotic, the author asserts that "neurotics are personalities who emotionally have never entirely overcome their past, with resultant suffering and difficulties. Thus, the neurosis is acquired, while the psychopathic condition is innate."

One wonders, when reading this book, for just whom it's written. The basic concepts would, for the most part, be familiar to the advanced student, but the phraseology would seem to hide the meat in many cases for

the beginning student. The basic material is generally fairly well established in psychology, and the interpretations of this material are, as a whole, familiar ones.

The American Woman in Modern Marriage. By SONYA RUTH DAS. 173 pages. Cloth. Philosophical Library. New York. 1948. Price $3.75.

Mrs. Das has written a short, though lucid and comprehensive, study—more or less statistical—of the American woman in modern marriage. Her accent is especially upon the new concept of women in relation to men, motherhood, economic independence, political freedom and intellectual progress which, the author believes, has resulted in an enormous development of the female personality.

Whereas women's place in marriage heretofore has been rather static and passive, it is now—due to the changes described in the book—dynamic and functional. It is interesting to note the differences between past and present religious, ethical and sexual concepts, and subsequent emancipation from former restrictions.

However, the author's final statement on the success of marriage in general is time-tested and basic: "Not how much one should *get* from the other, but how much one can *give* to the other is the essence of conjugal love and the key to conjugal happiness."

Counseling Adolescents. By SHIRLEY A. HAMRIN and BLANCHE B. PAULSON. 371 pages. Cloth. Science Research Associates. Chicago. 1950. Price $3.50.

The authors present techniques for counseling with young people. They discuss both the directive and non-directive approach but feel that both should be used, in that particular cases will respond better to one or the other procedure. In other words, they do not feel, as some counselors do, that a single approach can be applied successfully to all problems. They feel that an electic one is best, drawing from all the varied techniques of counseling.

The first chapter deals with a basic understanding of the concepts of human behavior; the second, with the behavior and problems of the adolescent. Chapters 3, 4 and 5 deal with various phases of counseling. Chapter 6 shows the various phases of counseling as they appear in the interview situation. The next three chapters take up the counseling situation from the standpoint of the areas in which the counselor works. The last chapter is devoted to a discussion of the counselor's personality and the role it plays in counseling technique.

This book should help the teacher or counselor evaluate leading theories and will enable him to draw from the material the most workable features of the various counseling techniques. The outstanding feature of the book is that a number of actual interviews are given and many excellent case summaries presented.

Psychology. Principles and Applications. By MARION EAST MADIGAN. 403 pages. Cloth. Mosby. St. Louis. 1950. Price $4.25.

The author's aim is to give the student a "brief introduction to the study of psychology, a foundation for the learning processes, an understanding of the biological and social forces affecting behavior, and an appreciation of the usefulness of psychology as a means of improving everyday behavior." He claims he has made a consistent effort to avoid the stilted academic attitude, and to use a therapeutic approach. He feels that if the student uses psychology as a constructive tool, he will show improvement in his personal life and at the same time gain a better understanding of mental ill health.

The author has drawn considerable material from the reaction of the ill in that he feels their guard is down and the extreme forms of behavior they display provide for a better understanding of general human behavior. He has considered all periods of development from childhood to old age. Basically, however, this is just another text on psychology, and a vast number are now available.

The Counseling Interview. By CLIFFORD E. ERICKSON. 174 pages. Cloth. Prentice-Hall. New York. 1950. Price $1.75.

The author states, "This book attempts to select from all the discussion and controversy on the subject some of those practical suggestions that every interviewer can use. The materials have been vigorously tested through several years of actual practice and experimentation. It is hoped that all interviewers will find some help and direction in the following pages."

The areas covered include: "What Is Interviewing," "The Origin and Nature of Problems," "Suggestions to Interviewers," "Getting Under Way," "The Interview Itself," "Organizing the Counseling Program," "Case Material Discussion," "Evaluating the Interview," and "Some ABC's of Interviewing."

This book should be of tremendous help to counselors who are starting programs in public schools. The chapter dealing with the methods of organizing such services is most informative and can be used as a guide in setting up an adequate counseling program. The outstanding feature of the book is that the author has stayed away from lengthy, involved explanations and states his points in a most concise, logical, concrete manner.

The Improvement of Practical Intelligence. By R. BRUCE RAUP, GEORGE E. AXTELLE, KENNETH D. BENNE and B. OTHANEL SMITH. 303 pages. Cloth. Harper. New York. 1950. Price $4.00.

This book is a revision of a text published in 1943 under the title *The Discipline of Practical Judgment.*

It tries to define, in terms of basic concepts, the main task of education from kindergarten to college. The basic theme is one of stimulating and exercising the student's intelligence so that he can make wise and practical judgments in his personal relationships and social contacts. The authors feel that the main task of education is to develop a dynamic relationship between knowledge and action.

The text is divided into three parts dealing with, "Why We Need a Method of Practical Judgment," "Principles of Method in Practical Judgment," and "Putting the Method to Work." Some of the material is interesting.

The Strategy of Handling Children. Questions and Answers on Parents' Problems. By DONALD A. LAIRD, D.Sc., and ELEANOR C. LAIRD, research librarian. X and 276 pages with many drawings, diagrams and index. Cloth. Funk & Wagnalls. New York. 1949. Price $3.85.

This book definitely deserves to be singled out of the long list of books intended as guides to the problem of handling and understanding children and their needs. Its arrangement is unusual, attractive and interesting. It is made up entirely in the lively form of questions and answers.

The questions are from everyday life as they may be presented to a family doctor, a pediatrician or a children's psychiatrist, or may be raised in a child guidance clinic.

The answers are given expertly in an informal, conversational, pleasant style, avoiding possible technical terminology; or they explain matters attractively by analogies and historical or biographical references from the present scene of life. Two pages of intelligent "Quizes" are added to gain active co-operation of the reader. There is not one page in this unusual book which is not interesting and informative.

The first part covers all kinds of problems which arise before a child's birth; the second part is concerned with the period of growing up, formation of character and personality; the third part with the development of appearance and abilities, with the training and directing of the growing child. An extensive, well-prepared index—printed on different-colored, harder paper for quicker finding—ingeniously placed in the middle of the volume, makes it a handy, quick-reference book. Nicely-drawn, appropriate sketches by Catherine Hayes are interspersed. These and a number of explanatory diagrams contribute to the attractiveness and value of this unusual book. It can be highly recommended not only for parents, but also as an introduction for child-guidance workers.

Personality and Youth. By LOUIS P. THORPE. 378 pages. Cloth. Wm. C. Brown Co. Dubuque, Iowa. 1949. Price $3.00.

"It is the purpose of this book," says the writer, "to present in non-technical language that high school students can understand and enjoy the essential facts of personality development and sound social adjustment as they are known to the science of psychology. It is hoped that the young people concerned will secure an adequate insight into the processes of human nature as these are involved in man's ceaseless efforts to satisfy his fundamental needs. With such equipment the student can deal with people on the basis of solid psychological knowledge; he need not depend upon the 'bag of tricks' ideas that are so often dispensed."

The text is divided into four parts dealing with understanding one's self and others, personality in formation and action, maintaining personal and social integrity, and everyday problems of high school students. There are many excellent chapters; the outstanding one deals with material concerning the prevention of nervous disorders. Despite the fact that a discussion of nervous disorders is most difficult without resorting to technical terms, the author has done an excellent job of presenting the material in simple non-technical language which will be understandable to the high school student.

The author has done an outstanding job of bringing together in one text considerable material which should be most valuable to the high school student in understanding himself and others.

Manhood of Humanity. By ALFRED KORZYBSKI. 326 pages. Cloth. International Non-Aristotelian Library Publishing Co. (Distributed by Institute of General Semantics.) Lakeville, Conn. 1950. Price $4.50.

This is a second edition of Alfred Korzybski's first publication which appeared in 1921. The fundamental thesis is "that man, while as 'natural' as animal, is different in dimensionality. Just as the sphere and the circle, though both are round objects, differ in essence; so man is unlike animal, being a time-binder as well as a space-binder. Indoctrinated from childhood with a zoological view of his own nature, selfishness and competitiveness."

This is an excellent text, particularly for those who are interested in studying the theory of time-binding, in that several appendices are included which cover topics such as "Some Non-Aristotelian Data for Efficiency in Human Adjustment," and "Selections from *Science and Sanity*." In addition, three of the author's later papers have been added to this volume, increasing its value. Korzybski has created an outstanding general theory about man, which, if applied by all, would contribute to co-operation and mutual happiness for all peoples of this world. The book reflects the author's genius; it is highly recommended, not only for those of us interested in time-binding, but for all individuals interested in humanity.

Feelings and Emotions. Martin L. Reymert, editor. 603 pages. Cloth. McGraw-Hill. New York. 1950. Price $6.50.

This book brings together some of the important contributions dealing with the psychology of emotions and feelings, in a symposium which tries to consolidate, in one text, widely-distributed contributions to an understanding of feelings and emotions. Many internationally famous scientists are among the contributors of chapters dealing with such concepts as education, psychiatry, clinical psychology, aesthetics, anthropology, phylobiology, psychobiology, phenomenology, physiology, psychoanalysis and international relations.

One wonders whether such a compilation serves the purpose intended, particularly since the literature and contributions in the area of emotions and feeling are so vast. Perhaps the growing trend to condense large wholes into small packets tends toward a loss of the original flavor. Nevertheless, the text is interesting; and some students may enjoy this way of presenting the material.

General Clinical Counseling. By MILTON E. HAHN and MALCOLM S. MACLEAN. 375 pages. Cloth. McGraw-Hill. New York. 1950. Price $3.50.

This text is intended for the graduate student who is interested in the basic theories and concepts of clinical counseling. It is intended as a basic text for students, and is well organized into teachable form, describing well the knowledge and skills necessary for competency as a professional counselor. The material is well selected and covers types of professional training necessary for clinical counseling, touches on the principles and tools of the counselor and goes into the specific problems which are of primary concern to the counselor.

The text covers its area well and should be of tremendous help to the student of counseling, in understanding his field and his role as a counselor.

On the Cause of Homosexuality. Two essays, the second in reply to the first. By G. V. HAMILTON and G. LEGMAN. 31 pages. Paper. Breaking Point. New York. 1950. Price not given.

This is a re-printing of two essays concerning the genesis of homosexuality. The paper "Fathers and Sons" by G. Legman is a reply to the essay "Homosexuals and Their Mothers" by G. V. Hamilton. Both present points of view which are not unknown to psychoanalytic circles, Hamilton finding that "the character traits of the homosexual as well as his actual inversion are defensive against incest." Legman presents the viewpoint which finds responsibility in the castrating and terrorizing father. Both essays are well worth study and use for reference. Legman's would have lost readability and gained force by less picturesque indictment (pages 22, 23 and 24) of Bergler, English and Hamilton.

Forty-five in the Family. By EVA BURMEISTER. 248 pages with illustrations. Cloth. Columbia University Press. New York. 1949. Price $3.25.

Miss Burmeister's story of Lakeside Children's Center in Milwaukee presents the positive and more optimistic factors concerning a children's home. The book's chapters each deal with a different phase of the home, such as discipline, play, and the director and the children. The reader is introduced to the various areas of the home and the interrelationship of these areas is illustrated by the author.

One gains from the book the feeling that the children and staff that make up the children's center are truly a family. The feelings and needs of their charges are uppermost in the minds of the staff as they plan the program of living for these children, most of whom have come from homes where they have been deprived of the love and affection of their parents. A better understanding of these individual feelings and needs seems to be the keynote of the philosophy, around which the center functions.

The author attempts to correct the negative ideas of children's homes, that are so prevalent with the general public. Her book illustrates the progress that has been made in the area of child welfare during the last several years. She presents the material in a simple but interesting manner. It would probably be of more value to the lay person than to those in the professional field.

Public Opinion, 1935-1946. Under the editorial direction of Hadley Cantril. Prepared by Mildred Strunk. 1191 large pages. Cloth. Princeton University Press. Princeton, N. J. 1951. Price $25.00.

Public Opinion, 1935-1946 is a compilation designed to cover the principal questions asked in public opinion polls throughout the world for a 10-year period. This is an important reference work for all social scientists and social science libraries. The tabulations are from 16 countries and 23 organizations. Very brief notes on sampling and other methods, as they vary from group to group, are included in the introduction.

This book is primarily a series of tabulations, and one presumes that its greatest usefulness would be to those who have other background material at hand. This would include some of the published discussions on public opinion surveys, methods and reliability available from other sources. Because of the period covered, there is, for example, no discussion of the various polls which gave the wrong answer on the presidential election of 1948—material which, of course, must now be taken into account in evaluating all sampling results. One presumes the next volume, which is planned to cover a five-year period, will make good this omission. Later material should add considerably to the practical usefulness of a compilation which is already of most outstanding importance.

An Outline of Scientific Criminology. By NIGEL MORLAND. 267 pages. Cloth. Philosophical Library. New York. 1950. Price $4.75.

The author is internationally known as a writer of books pertaining to the scientific side of criminology. Most of them have been translated into many languages. His books have appealed not only to the criminologist but to the layman as well.

This book is written in a pleasant style and in simple, non-scientific language. Its chapters tell about fingerprints, identification of individuals, forensic ballistics, medical jurisprudence, forensic chemistry, documentary evidence, secret writing and the use of the microscope and the camera. The book contains many references to actual criminal cases, which make the reading very interesting.

It is true that this book is not "required" reading for the doctor, but it should be very valuable to him, especially if he is exposed to the possibility of being involved in criminal cases, and no doctor knows when that might happen.

The Story of Old Bill Marshall. A Sage of The Schoharie Valley. By HORATIO M. POLLOCK, Ph.D. As told by Miles Allen. 250 pages plus chapter titles and foreword. Cloth. Middleburgh Publishing Co. Middleburgh, N. Y. 1948. Price $2.50 postpaid.

This, a biographical novel, is a pleasing story of life in up-state New York in the last quarter of the nineteenth century, based in part on the experiences of the author, the late former chief statistician of the New York State Department of Mental Hygiene, as a young man.

In the person of "Old Bill Marshall" we see a man who, with his family, lives happily in his new home, being a good neighbor, business man and public-spirited citizen. His interest in and liking for people is constant and spontaneous. This is shown in many ways such as: The establishment of a broom factory which provides a market for local farmer's broom corn and jobs for local workmen; personal concern and constructive help for deserving persons; willingness to assume public office at the community's request, though wisely relinquishing it when he felt another should serve.

He shows great kindness toward young Miles Allen, who tells the story, is most generous with advice when solicited and most willing to tell of his own philosophy of life. He meets with opposition from some members of the community on religious grounds but ultimately is respected almost universally in the valley. Several New York City boys befriended by "Old Bill" achieve success, as does our story-teller, who becomes a doctor and marries one of his benefactor's daughters.

Principles of Psychology. By WILLIAM JAMES. 1,377 pages and index. Cloth. Dover Publications. New York. 1950. Price $7.50.

Now one can obtain in one volume (two volumes combined in one), the unabridged writings of William James on the principles of psychology that he taught at Harvard University. The wide range of fully-discussed subjects includes: sensation, perception of reality, imagination, attention, association, memory, emotions, will, etc. Each chapter provokes considerable thought because of its clarity and everyday applicability. The reader will be pleased by the manner in which James concurs and disagrees with other authorities. His reasons and expressions are explicit. He does not fear to record his doubts, nor to leave unanswered those problems that as yet are not solved.

For the psychologists, this is standard reading; for the psychiatrist, it becomes a norm of comparison for abnormal thinking; for all scientists searching for truth, the portion on "illusions" will be provocative in particular; to all readers, this volume will remain a classic of introspective interpretation.

Midsummer Fires. By JAMES ASWELL. 311 pages. Cloth. Wm. Morrow & Co. New York. 1948. Price $3.00.

In this novel the action covers but little more than a week, during which period the central figure, an artist, goes through a psychological metamorphosis which would have done credit to a year's analysis, the two principal therapeutic agents being alcohol and a new contract for his product. The hero, Gael Ring, had created a voluptuous semi-nude figure known as the Ring Girl, presumably much in the manner of Petty or Vargas. "The Girl" was a figment of his imagination and, as the author says, "The Girl was tawdry and meretricious; but she was also the immemorial whore-madonna against whom every bride since Eve has been a make-do and a must-do, a sorry or sorrier compromise."

He painted from memory, never using a model. Apparently in his sexual life he also visualized "the Girl," and sexual congress was emotionally with her, rather than with his wife. "The Girl" became increasingly elusive and therein lay his failure, both in his artistic and, therefore, remunerative field, and also in his marital life, so that at 40 he found himself impotent and losing all his worldly goods. During a week's trip to New Orleans to paint a portrait, a type of work he had previously frowned upon, he spent a high percentage of his time intoxicated, dashed off a couple of pictures of elderly people and was sexually stimulated by a 13-year-old girl. The latter grants him a temporary feeling of sexual ability, and the portraits secure for him a contract for $120,000, because of the new style he has created. The termination of the book is some-

what ambiguous in that he is apparently reconciled to his impotence, inasmuch as he has regained his financial status. However, before retiring to the nuptial bed, "he poured himself a slug from a bottle of bourbon" and mused, "yes, with the whiskey everything would most certainly be alright. This time."

The book is replete with flash-backs into his earlier life, a device which at times breaks the continuity of the current narrative. It is profusely sprinkled with expressions not for the eyes of children; and there are a number of neologisms in the descriptive sections of the story. Certain other characters are not psychologically inaccurate; but this reviewer feels that their various traits have been rather overemphasized, so that they do not seem too natural. Further, in the author's attempt to show the hypocrisy and sham rampant in the hero's town, he has approached a destructive iconoclasm.

The Road to Love. By GWILYM O. ROBERTS. 214 pages. Cloth. Chanticleer Press, Inc. New York. 1950. Price $2.95.

This is an utterly naïve, though well-meaning, popular attempt "to piece together the available scientific bits of knowledge as best we can, in a non-technical manner" (preface). The underlying principle of conscious rationalizations, is best characterized by the definition of "the unconscious":

"Below the highest level or below the speech mechanism; unverbalized. An unconscious motive is one that is unanalyzed and inarticulate. The individual is not entirely unaware of it: he simply cannot tell anybody what it is. He cannot even tell it to himself, which is another way of saying that he does not understand it . . . The theory of the neurosis that lies behind this book will have no truck with the absurd and illogical concept of 'unconscious mind', but old-fashioned psychoanalysts still delight in talking about unconscious states of consciousness" (p. 213).

Small wonder that this "theory of the neurosis" (which considers the dynamic unconscious "absurd and illogical"), does not mention the name of Freud in the index of names. Freud is obviously too "old-fashioned" for the modern author.

The Demon's Mirror. By JAMES WALLERSTEIN. 326 pages. Cloth. Harbinger House. New York. 1951. Price $3.50.

Here is a fantasy of the overthrow of the last enemy of the gods and of man. Mr. Wallerstein's writing is far better than average, and his book makes for not unpleasant, if somewhat baffling, reading. Both manifest content and motivation should fascinate the psychoanalyst. Other readers will find fascinating reminders of H. Ryder Haggard, Lord Dunsany and some of the neo-Fascists—the last properly confounded at the end.

The Flowers of Evil. By CHARLES BAUDELAIRE. Translation and psychoanalytic notes by Arthur F. Kraetzer, M. D. 236 pages. Cloth. Richard R. Smith Publisher, Inc. New York. 1950. Price $4.00.

The late Dr. Kraetzer has attempted a doubly difficult task in presenting here a new translation of Baudelaire's masterpiece. Kraetzer was an admirer of, and sympathizer with, this tragic literary figure. He finds Baudelaire a courageous exponent of beauty as he saw it. He is, Dr. Kraetzer thinks, a "sinful saviour" of mankind, the "mouthpiece of man's grief since man came out of his mother's womb." "By the process of being damned himself, he plumbed the secrets of Man's damnation, and he was close, so close, to the answer."

Dr. Kraetzer finds justifiable fault with previous translations. He has aimed, he says, to adhere to literal translation and to accurate reproduction of meter and arrangement of line. This is an impossible goal but as far as this reviewer can judge, he has come very much closer than most translators to achieving it. Second, Dr. Kraetzer has endeavored to interpret psychoanalytically the meanings and motivations of the more important poems. This method, of course, has its well-known drawbacks. Except in the broadest sense, each psychoanalytic student will interpret his own detail. One may feel, however, that there will be rather general concurrence in the interpretation as a whole.

This book is to be commended alike to depth psychologists with literary tastes and to literary people with psychiatric backgrounds.

Twentieth Anniversary Review of the Josiah Macy, Jr. Foundation. 110 pages. Cloth. Josiah Macy, Jr. Foundation. New York. 1950. Price not stated.

After two decades of service to mankind, the Josiah Macy, Jr. Foundation renders its accounts. There is particular emphasis on psychiatry and psychosomatic medicine, with brief notations of the foundation's functions in the advancement of both. As the record of a highly successful private foundation dedicated to medical and health research, this is an important document both in the field of medical economics and in that of our own specialty.

Fables—1950. By J. S. LAWSON. 33 pages. Cloth. Exposition Press. New York. 1950. Price $2.00.

This is a neat collection of polished little notations on the habits and motivations of mankind. Different as it is in form, it recalls the cartoons of Steig and Addams. The interpretations seem authentic, and readers with interest in dynamic psychology should enjoy them. This sort of thing has been done before, but seldom so well.

Secret Thread. By ETHEL VANCE. 261 pages. Cloth. Harper. New York. 1948. Price $2.75.

This book details microscopically what transpires from a Saturday afternoon to a Monday morning when the middle-aged president of a small college accidentally finds himself imprisoned in an abandoned house awaiting the wreckers but meanwhile being used by a big city gang as a hideout and cache for loot. He is discovered there, in turn, by the adolescent sister of the mob leader's lieutenant, by an old man—a character in that neighborhood considered to be a harmless psychotic, and finally by the gang leader and his lieutenant.

This novel may be entertaining to those readers who prefer their fictional characters as caricatures of homo sapiens rather than figures of a heroic mold. Professionals possessing a knowledge of the dynamics of psychopathology will recognize in the principals a manic-depressive, a drug addict, a deteriorated alcoholic, an antisocial psychopath, and a juvenile delinquent girl who serves the various distorted personality needs of the four adults.

The author's knowledge of Freudian psychology is unmistakably reflected. She speaks of the college president "not liking his unconscious decisions"; and, when he is erotically stimulated by the sight of a pair of shapely legs, he wishes for a cocktail which would be "an aphrodisiac and a Mickey Finn in one." She mentions the "struggle . . . between the desire for understanding and . . . the fear of understanding." Again, "Everyone knows how in the midst of a determination to succeed, some part of us is also preparing to fail. . . ." She relates in rather convincing detail how terribly cheated was the college president, as well as the girl and her brother, of that prime requisite for normal personality development, proper parental affection. (Incidentally, the author informs us that her mother died when she was born and that various relatives brought her up.)

On the front cover flap the statement is made that this book is "an examination of man's unceasing search for his own spiritual identity." This reviewer would like to re-phrase spiritual identity in terms of the search for the ideal child-parent relationship that reality denied the individual during his infancy and childhood. The rear cover flap tells us that through this one week-end experience our college president "achieved the balance and self-knowledge he has been seeking." This is too good to be true.

A Child's Garden of Relatives. By SEYMOUR BARNARD. 84 pages. Cloth. Rinehart. New York. 1950. Price $2.00.

Here is a collection of 34 beautifully illustrated (by Edna Eicke) little verses selected from *Woman's Day*, in which they have for some time been a feature. The observations seem sound, if by no means profound. It would do no particular harm to the cause of mental hygiene if parents—and other relatives—could be persuaded *en masse* to take this book seriously.

Again the Goose Step. The Lost Fruits of Victory. By DELBERT CLARK. x and 297 pages. Cloth. Bobbs-Merrill. New York. 1949. Price $3.00.

In a fiery, categorical, outspoken and direct book entitled *Again the Goose Step,* Delbert Clark in anecdotal fashion writes in tough, realistic language on the so-called fruits of victory in Germany which had been promised the American people and the world as the outcome of World War II. His character analyses of men like General Clay and other governmental and military personnel responsible for conduct of the occupation, are honest and candid. Mr. Clark had spent nearly two years in postwar Germany: His book proves how observant and discerning he was; and present-day events prove how correct he was in many of his judgments.

The author is a keen journalist who had hoped that out of the recent war a better world was finally going to emerge, but he is shocked and disheartened by what he has seen and experienced in Europe, and in Germany particularly. He reports on his observations in a tone of righteous indignation. He sees in present-day events a negation of all the principles for which America had fought the war. He does admit, in honesty, that many of our mistakes were mistakes of inexperience grounded in good will. But "Others [of our mistakes and errors] do not fall into that category," and he chronicles too many of our blunders in the political, social, educational, and financial spheres. He subjects his own arguments to a remarkable amount of critical scrutiny.

Again the Goose Step is realistically ominous, a warning to Americans to recognize at long last, before it is *too* late, the inexorable development of our suicidal policy toward Germany. Otherwise, Delbert Clark asserts, we will most certainly forfeit the fruits of our hard-won victory.

Black Bethlehem. By LETTICE COOPER. 324 pages. Cloth. Macmillan. New York. 1947. Price $3.50.

This is a rather naïve but not too uninteresting book, although one with great aspirations which remain unfulfilled. It has as its motto W. H. Auden's "Every living creature is—Woman, Man and Child." This is interpreted in a tripartite division of the book, depicting the story of a man, a woman, and a child. The upshot is a good description of the London "blitz." At this point psychology ends.

The blurb proclaims that the stories hint at an allegory, and "reveal the insecurity that is the root of all evil." That "insecurity" could have an unconscious substructure (besides reality factors) does not occur to the author. Or, if it does, her psychology is simplified to the point of such attenuation that no more than "common sense" remains. The stories "reveal" something, of course. But facile writing, combined with psychological naïveté are not enough for a novel. The author knows too little, intuitively and—otherwise.

Religion and the Cure of Souls in Jung's Psychology. By HANS SCHAER. Translated by R. F. C. Hull. 221 pages. Cloth. Pantheon Books (Bollingen Series XXI). New York. 1950. Price $3.50.

In a brilliant volume entitled *Religion and the Cure of Souls in Jung's Psychology,* Hans Schaer writes with lucidity and comprehension on the elements of Jungian psychology, the psychic bases of religion, religion as a psychic function, man and religion, and Jung's significance in the religious situation of today. It is a sound, significant, and sensible book, written by a Protestant theologian and pastor concerned with the need theology has of psychology.

Dr. Schaer turns to Jung's psychology because Jung sees in religion a way to spiritual healing and health; and, in this treatise, religion is shown as the active relation of the personality with those forces which it encounters in the realm of inner experience. It is true: Jung has introduced man's religious need into psychology—although the psychology of Jung, regarded scientifically, is not the nearest approach to religion. In fact, historically and logically, Jung has not discovered religion for psychology, although in all of his writings one finds flashes of insight and ideas that touch on the religious side of things, in some form. Essentially, to be sure, religion and psychology are interrelated on at least one principle, the motive principle of all scientific psychology; namely, the urge to deeper self-knowledge.

Jung's psychology does not say: Man has a soul or psyche. It says rather: Man, as a psycho-physical being, partakes of psychic reality, or is a part of psychic reality. And for Jung, religion is approved as being an essential manifestation of psychic life; and many Jungian concepts and ideas about religion have their counterpart in theology. For him, too, God is first and foremost a psychological fact, and he speaks of a God-image in his writings, perhaps somewhat mystically. This book, then, in its comprehensive study of Jungian psychology in relation to religion, performs a basic task commendably, in attempting to get science and psychology closer to the nature of religion.

Some Contemporary Thinking About the Exceptional Child.

The Exceptional Child in Infancy and Early Childhood. 64 and 48 pages respectively. Paper. Child Research Clinic of Woods School, Langhorne, Pa. Available without charge.

The reader should note that the term "exceptional child," with respect to these booklets, means the handicapped and the defective.

The first of these publications is the proceedings of a special conference on education of the exceptional child in Langhorne, Pa., in November 1949. This was called to make a body of knowledge available to the White

House conference on children and youth. In this Pennsylvania conference, the exceptional child was discussed by legislators, attorneys, psychiatrists, psychologists, physicians, social workers and educators.

The conclusions were: that the economic burden of the parents and the state can be lightened by proper and early care; that interest must be aroused so that research may be carried on; that the schools, and through the schools the parents, must come to understand and accept the exceptional child; that the situation must be recognized and that there must be willingness to do something about it; and that we should educate the child at his level of ability and not "shoot for the stars."

The second pamphlet is the proceedings of the Annual Spring Conference on Education and the Exceptional Child. This conference had as its special topic ". . . the study of the exceptional child from birth to six, which are held to be the years of primary growth and development . . . the emphasis of each speaker is on the prevention of developmental handicaps through early recognition, accurate diagnosis and prompt remedial treatment. . . ." This conference was participated in by physicians, a dietitian and a speech pathologist.

They indicated that: prophylactic mental hygiene during the mother's pregnancy and the first 10 days of life should be done on the basis of the general prognosis of her family, that a happiness balance—more happiness than unhappiness—can be maintained if there are suitable living conditions, that anxiety is alleviated by relaxed play and cheerfulness; that exceptional children vary about eating as much as any other group; that oral language is the most efficient medium for the education of the slow learner, and that this should hold a prominent place in the schools designed for these students.

Patterns of Progress. By HORACE M. KALLEN. 87 pages. Cloth. Columbia University Press. New York. 1950. Price $1.75.

In a sound and significant little book entitled *Patterns of Progress*, Horace M. Kallen speaks sagely on the general fitness of the world. The book is a quiet, wisdom-filled treatise, optimistic of the future of man and certain that our progress is true and real. It is a series of lectures combining humanism in philosophy and sense of responsibility to scientific knowledge.

Dr. Kallen argues the thesis that achievements, winnings, findings, possessions, enjoyments—every consummation that experience may take account of—make up the aggregation of the values which tradition separates into hierarchies of the good, the right, the true, and the beautiful. In brief, he re-defines the modern idea of progress, and presents his interpretation in three essays entitled "The Will to Progress," "Cultural Lag," and "Of Death and the Future." Again does Professor Kallen prove himself one of the most original and foremost expounders of Jamesian pragmatism and the concept of cultural pluralism in America.

The German Catastrophe. Reflections and Recollections. By FRIEDERICH MEINECKE. Translated by Sidney B. Fay. xiii and 121 pages. Cloth. Harvard University Press. Cambridge, Mass. 1950. Price $3.00.

One of Germany's most distinguished historians, Professor Friedrich Meinecke, writes *The German Catastrophe: Reflections and Recollections.* To the credit of the author, from the earliest months of Hitler's regime in Germany, he used his vast experience in hastening, in his own way, the inevitable downfall of the dictator by strict adherence to historical logic in his teachings, by emphasizing and re-emphasizing in his writings the truth in historical fact, by his consistent and brilliant thought in the social sciences. The present book is a translation of the author's very influential text, *Die Deutsche Katastrophe,* published originally in 1946 in Wiesbaden.

Dr. Meinecke interprets with academic brilliance the events of history in the light of two world wars, and shows their deeper causes and relationships. His style is condensed, metaphoric, with sufficient nuances of thought to make his book especially significant. Professor Meinecke is a writer and teacher of history who develops his ideas in logical and dialectical order, and his recent book portrays the rise of modern nationalism in bold strokes. The volume is written with candor, with moral courage, and with intellectual acumen, and the author concludes his book with hopeful suggestions as to how Germany can recover a respected, though diminished, position among the nations.

Psychology in Everyday Living. By RALPH LESLIE JOHNS. x and 564 pages. Cloth. Harper. New York. 1950. Price $3.50.

Edited by Gardner Murphy, *Psychology in Everyday Living* by Ralph Leslie Johns is a sound, direct, and practical book in the field of general psychology. The point of view is realistic and contemporary, and Dr. Johns treats well such topics as the origin of behavior, sensory phenomena, man's abilities, thought processes, and personality factors. Reference is made frequently in the text to case histories, which are generally apropos to the field covered by the book. For the academician, this text is especially useful because it includes self-tests for students, simple experiments, lists of visual aids and good references for bibliographical reading.

Dr. Johns avoids the merely physiological emphasis in his analyses, and for the most part presents a rather eclectic point of view—however quite convincingly. In many respects, this is a truly good textbook for introductory psychology, especially for students who do not plan to major in the field. It is well organized and concisely written. *Psychology in Everyday Living* is a systematic presentation of empirical and experimental facts and principles.

The People of Great Russia—A Psychological Study. By GEOFFREY GORER and JOHN RICHMAN, M. D. 368 pages. Cloth. Chanticleer Press, Inc. New York. 1950. Price $3.00.

The people of Great Russia compose the principal nation of the U. S. S. R. and represent about half of its population. They live in the central and northeastern areas, and their language is the standard literary language of Russia. This book is an attempt at furthering our understanding of the people who live in this area. The authors have divided their task: Dr. Richman writes anecdotes calculated to throw maximum light on the life of the people as he saw it as a doctor in the Russian countryside. Mr. Gorer attempts to report on the nature of these people, as he believes it to be from interviews with them and analyses of their books.

From this book, without a direct statement from the authors, one begins to understand why social revolution was possible and why the reaction against the church was inevitable. There are many interesting sidelights which enrich the book as it pursues its main theme. For example, the authors state that the average peasant uses about five pounds of iron and 600 pounds of wood in his lifetime.

The final section of the book (appendix) is written partly by one author and partly by the other and deals, for the most part, with the development of the swaddling hypothesis. This is an attempt to attribute the basis of Russian character to swaddling, a process of wrapping the infant from the neck down tightly in strips of cloth until he is approximately two years old, thus allowing very little motion. This discussion is psychoanalytically oriented, and some very interesting conclusions are suggested.

The book is interesting and informative reading, and your reviewer would recommend it highly to all. It served one major purpose, other than those stated by the authors, for this reader. It reminded him that Russia is composed of people, not of communistic ideology.

The Short Cut. By ENNIO FLAIANO. Translated from the Italian by Stuart Hood. 302 pages. Paper. Pellegrini & Cudahy. New York. 1950. Price $3.00.

Here is a strange and peculiar story of inner guilt, intermingled with unclarified, or unclarifiable passages. An Italian officer kills, during the Ethopian campaign, more or less by accident, a native girl with whom he has slept, buries her in secrecy, and is plagued by guilt. A whole pandemonium of fears (already present before the act) sets in; the man fears to be infected by leprosy, to be found out, to be accused of other misdeeds—a matter which he provokes, etc. This piling up of fears has, peculiarly enough, a happy external ending—nothing happens. Completely out of focus is the relation of the officer to the girl's father, taking up a good deal of the narrative. It is a painful and psychologically-confused book.

The Future in Medicine. The March of Medicine, 1949. Number XIV of the New York Academy of Medicine Lectures to the Laity. 160 pages including tables, diagrams and index. Cloth. Columbia University Press. New York. 1950. Price $2.50.

Number XIV of the New York Academy of Medicine lectures to the laity is published as a book in the traditional dignified form which make the lectures available to a wider circle. This particular volume takes a special place in this series for one discussion which should be read, and should not be forgotten, by all who are interested in humanity and in the potentialities of the human mind: Leo Alexander's lecture "Science Under Dictatorship." There is nothing more timely today than to follow this author through the fantastic—and, for a healthy mind, unreal-seeming—story of the confusion and perversion to which dictatorship is able and likely to lead the singled-out profession of medicine. Alexander gives the petrifying history of the medical events—or better of the deeds—to which the medical profession degraded itself under Nazi rule in Germany, without a solitary outcry of revulsion. Here is enough material for thought for those who feel justified in advocating subordination of an honorable free profession to political doctrines! The dynamics of the dictatorship in its functions upon science are ably discussed and analyzed in a way that should become familiar to every thinking individual. The reviewer feels it especially worth while to mention that the author reports here the uniformly dignified attitude of the freedom-loving and honor-loving Dutch physicians who succeeded in their resistance when confronted with the shameful demands of the occupying power.

Former Secretary of War Patterson's essay on law and medicine is interesting, particularly in his discussion of criminal responsibility, of alcoholism as a medico-legal problem, and of the physician as an expert before the court.

The lecture on the endocrines ("Servants or Masters?") by Ephraim Shorr is a concise review of the fast-progressing knowledge of the interrelationship of the functions of the ductless glands and of their role in total physiology (as known at the day of the lecture!). Illustrated by schematic drawings and tables, the discussion of the complicated subject gives a rather clear over-all picture of the symphonic teamwork of the endocrine glands.

William C. Boyd contributes a short, clear review of the science of the blood groups and of their significance in science and practice. In the last lecture, George E. Gardner, executive director of the Judge Baker Guidance Clinic, leads his listeners into the complicated field of the mental mechanisms in general and especially in criminal behavior.

One must be very grateful to the New York Academy of Medicine for offering such lectures to the public. This volume takes a special place in the series and must be recommended highly.

The Root and the Bough. Leo W. Schwarz, editor. 362 pages. Cloth. Rinehart. New York. 1949. Price $3.75.

Genocide, defined in part as "acts committed with intent to destroy, in whole or in part, a national, ethnical, racial or religious group," has only recently been declared a crime punishable by law by the United Nations. This book deals with the most recent acts of genocide: the mass persecution and extermination of Jews under the Nazis. Recollections of 32 survivors of Nazi Ghettos and concentration camps were selected by Mr. Schwarz from collections scattered all over the globe, and were edited with unusual skill and sensitivity. These documents describe the resistance put up by defenseless men, women and children, the endurance of incredible torture and suffering—all of which is told in a style of calm restraint and simplicity, which reinforces the inherent tragedy of this theme. Students of human nature may find in these pages proof of the durability and dignity of man and the strength of his will to live in the face of impending death.

This is a timely and stirring volume, but one that is not pleasant to read, especially for those in whom these tales will awaken personal memories.

White Crocus. By PETER PACKER. 275 pages. Cloth. Whittlesey House. New York. 1947. Price $2.75.

Here is the story of a girl who, seemingly in peculiar neurotic attachment to her father, writes anonymous letters implicating him. The psychopathic girl, later showing homicidal impulses, is completely out of focus; her psychological make-up is borrowed from misunderstood psychiatric books. However, there is a good description of a masochistic man, the father.

Although a rather unimportant figure in the book, he is the real hero. One wonders whether the author, after forgetting his misunderstandings of psychiatric literature, will not some day write a good novel.

Quatrefoil. By JAMES BARR. 373 pages. Cloth. Greenberg Publishers. New York. 1950. Price $3.00.

Once more, here is a novel pleading for acceptance of bisexuals, this time done with relatively good narration, but plentiful lack of psychological insight. It depicts a young naval officer who maneuvers himself through rather silly provocations into a lot of troubles, is court-martialed, and is rescued by a homosexual lieutenant-commander, with whom the hero starts an affair, having had, first, a transitory affair with the rescuer's wife.

The inner conflict is described as grandfather-father-son entanglement, even heredity is suspected; the decisive mother-child conflict is neglected. It is rather amazing that the growing belletristic literature on homosexuality so far has not produced *one* writer with some intuitive inkling as to what makes a man a homosexual.

Annual Review of Psychology. Vol. I. C. P. Stone, editor. 330 pages. Cloth. Annual Reviews, Inc. Stanford, Calif. 1950. Price $6.00.

It is stated in the foreword of the Prospectus of the Annual Review, Inc.: "Since these reviews are now well known throughout the world it is not the purpose of this prospectus to dwell upon their intrinsic merits and usefulness. It is sufficient to mention that they are designed for those engaged in teaching and research, and whose background knowledge of the subject is already established. Substantially the same subjects are reviewed annually or biennielly, thus permitting the reader to obtain, at a somewhat advanced level, a report of the principal advances on the entire field throughout the period under review." This is prospectus open to question.

It is doubtful that this book will be of particular value to anyone. The advanced student keeps up with his particular interests in the field by reading current literature. He is not content with a mere statement of findings but will seek out the original article for details. Many of the reviews are very poorly done and have not covered many of the major contributions. The articles are too short; and too many different fields have been covered, at the expense of thoroughness.

The book is printed in small type and is hard on the eyes. In addition, the price seems out of line with the size and value of the book.

Psychoanalysis and Religion. By ERICH FROMM. 119 pages. Cloth. Yale University Press. New Haven, Conn. 1950. Price $2.50.

This book is based upon lectures given by Dr. Fromm under the auspices of the Ferry Foundation at Yale University. In it, this reviewer notes a continuation of ideas which Dr. Fromm expressed in *Man for Himself.* In *Psychoanalysis and Religion,* attention is focused upon religion instead of ethics, with the focus mainly in defense of psychoanalytic thoughts and principles. One might ask why Dr. Fromm has to defend psychoanalysis if he believes the arguments which he presents and which recommend freedom of thought and mental liberation from faith of the type of idolatry. Dr. Fromm is, no doubt, preparing himself for the criticism which will arise from the group of religionists who insist upon the all-powerful God and eternal damnation.

Dr. Fromm divides religion into two kinds: authoritarian, which recognizes a higher power controlling one's destiny and demanding reverence, obedience and worship; and humanistic, which encourages man to free himself from the threatening all-powerful God and allows man to use reason in his applications of truth, love and freedom. The author holds that humanistic religions include not only those of Buddha, Lao-tse and Jesus, but also religion which would follow the principles of psychoanalysis. He analyzes traditional (authoritarian) religion and points out its dangers and weaknesses. He says that man without love, faith and truth is anxious

and confused; that traditional religion creates ritualistic, compulsive behavior, which becomes not only unconscious and automatic, but imposes upon the person unbearable feelings of guilt which are only relieved by compulsive, ritualistic actions.

Dr. Fromm holds that psychoanalysis is, by no means, a threat to religion. "The attitude common to the teachings of the founders of all great Eastern and Western religions is one in which the supreme aim of living is a concern with man's soul and the unfolding of his powers of love and reason. Psychoanalysis, far from being a threat to this aim, can on the contrary contribute a great deal to its realization."

This reviewer wonders if psychoanalysis by some other name would create less antagonism in certain religious circles. He doubts that most priests and ministers fight against the principles of psychoanalysis. Perhaps sexual connotations strike sparks which start the religious conflagration.

Principles of Psychology—A Systematic Text in the Science of Behavior. By FRED S. KELLER and WILLIAM N. SCHOENFELD. 400 pages. Cloth. Appleton-Century-Crofts. New York. 1950. Price $4.00.

This book was written primarily as an introductory text for beginners in psychology. With this point in view, the authors have succeeded strikingly in achieving both an interesting and clear style of writing plus a plan so organized as to start with the most elemental subject matter, and to progress by a series of steps to the more complex.

The point of view is completely oriented in the direction of modern behaviorism or reinforcement theory: That is, behavior is lawful and may be approached scientifically. The fundamental of behavior is the reflex arc plus conditioning. There are points where the rationale becomes somewhat thin, and at these points the arguments become a bit emotional. For the most part, however, the authors have presented their empiricism deliberately, with few conclusions drawn from material other than that which may be directly observed.

This reviewer feels it would be an injustice to argue the philosophy of this text here, but he does think that it is justifiable to criticize the fact that, while written as an introduction to psychology, it presents only one school. Granted this is a large and ever-growing school, it still seems that the beginner in psychology should have some right to pick and choose. Also, of necessity, subject matter is limited a great deal in a book of this type as there are a great many fields of psychology that are not easily handled under this method of treatment. On the other hand, this book succeeds very well as an introduction to modern behavioristic theory and would probably be very worth while as a supplement to a more eclectic text.

Call It Treason. By GEORGE HOWE. 342 pages. Cloth. Viking. New York. 1949. Price $3.00.

This is a Christophers Award novel of three German prisoners of war, who agree to being dropped by parachute into Germany to work their way through the war-torn country to pick up information for the Allied lines.

Each of these "Joes" has his own concept of freedom; and so does their creator, who writes with a pen sharpened by his own observations of men and his experience in the OSS.

Let those who believe "there will always be war," follow Happy's startling travels to Manheim from Heidelberg; or let the armchair philosopher try to separate the black from the gray ideologies of hunter and hunted. We who read might echo Pete's comment, "The gorilla is a better American than lots who wear the uniform even if he can't speak our language."

No review of this book would be complete without mention of the book's first and last chapters which are letters from a Berlin doctor inquiring about his son. They are masterpieces of restraint and breathe such compelling sincerity that for these pages alone the book justifies its winning place over 2,000 other manuscripts.

A Workbook for the Study of Human Physiology. By JAMES R. BURKHOLDER. 224 pages. Paper. Pacific Books. Palo Alto, Calif. 1949. Price $2.50.

This is a loose-leaf type work manual organized by Dr. Burkholder, professor of physiology at Fresno State College, Fresno, Calif., and written as a guide for the student. The author notes that this workbook follows closely the text *The Living Body* by Best and Taylor, although some other appropriate text might be used.

Persons teaching physiology will do well to investigate this well-organized manual.

Handbook of Correctional Psychology. By R. M. LINDNER and R. V. SELIGER. 691 pages. Cloth. Philosophical Library. New York. 1947. Price $10.00.

The editors state, "The intention of the editors in preparing this volume was to compile a practical and helpful compendium to act as a guide in correctional medical work." The editors have called upon many outstanding experts in the field for their contributions, and the end product has been most refeshing. Most of the authors have treated their subjects extremely well and have offered valuable information.

This book should provide constant guidance to the prison psychologist, social worker, physician, psychiatrist, administrator and others directly concerned with better rehabilitation measures in our institutions of detention and custody.

Neuroses and Sacraments. By ALAN KEENAN, O. F. M. 163 pages. Cloth. Sheed and Ward. New York. 1950. Price $2.50.

Today the neuroses seem to be popular mysteries which practically every person is trying to solve. One sometimes wonders if some persons really know the neuroses or just think they know. Even psychiatrists who treat these problems each day admit that solutions are not easily reached.

In *Neuroses and Sacraments,* Father Keenan expresses his views relative to the causes of neuroses and their treatment. He agrees with many clergymen that adherence to an authoritative religion (submission to an all-powerful God) will bring about a solution of emotional problems. He believes that the neuroses are caused by a failure to obey the laws of God and the teachings of Christ; that a neurotic illness can be cured if one abides by the Sacraments. "The end of man is union with God at all levels of the human personality. Man has no right to the supernatural union of sonship with Christ but God calls him to it and furnishes him with the Sacraments, which are the means to attain the union. . . . Those who are integrated in their lives by the Sacraments of Christ achieve peace of mind. . . . Our background is the unsettling conditions of artificial life divorced from Christ. We are State Man, Economic Man, Advertisement Man, anything but the Christ Man. And that is our trouble—the absence of grace."

Clergymen and others will gain from the reading of this book, but your reviewer doubts that the average person will understand Father Keenan's theme.

Having a Baby—A Guide for Expectant Parents. By ALAN F. GUTTMACHER, M. D. 192 pages. Paper. A Signet Book, New American Library of World Literature, Inc. New York. 1950. Price 25 cents.

The author is very well qualified to write on this subject and succeeds in putting down a lot of semi-technical information in a readable manner, although there are sections that caused the reviewer to wonder if the author had not acted ill-advisedly in including certain material. This observation is from a psychological viewpoint in reference to the discussions of some of the more serious complications of pregnancy and the puerperium, especially as the book is designed for expectant parents who are not likely to be overly objective. That the author felt this possibility to some extent, is evidenced by the following excerpt, "This book in trying to tell the whole story may have given undue space and emphasis to the abnormalities of pregnancy and labor." However, the chapter, "Safer Childbirth," undoubtedly helps to alleviate fears.

The chapter, "The Newborn Child," probably will provide a great deal of solace to the new parents when they behold their somewhat battle-worn offspring. The book, as a whole, is well worth reading, and this reviewer would recommend it to mature and intelligent prospective parents.

The Adjustment of the Blind. By HECTOR CHEVIGNY and SYDELL BRAVERMAN. 320 pages. Cloth. Yale University Press. New Haven. 1950. Price $4.00.

"This book attempts," say the authors, "a work of demolition of the old fables about the emotional life of the blind; but it will seek, too, to add to our positive knowledge concerning the manner of physical and mental functioning in the blind. It will attempt to inquire into precisely what it is to which the blind must adjust. To do this effectively we will have to inquire into the psychology of the sighted world which maintains the social situation that distinguishes the lot of the blind from all others."

The study involved collecting considerable data on the major physical, social, and psychological problems of the blind and consulting about them with authorities in the field and others interested in human behavior. As a result an excellent assessment of how the blind must adjust mentally, socially and emotionally is set forth, along with discussions of what reception the blind can expect from society in general.

The authors point out that modern mechanics, such as the typewriter and telephone, have provided a potential for equality for the blind, yet society's attitudes place barriers against their employment and are responsible for marked discrimination. Such an attitude not only makes for feelings of insecurity but also creates severe frustrations.

The text is exceptionally well done and will give the reader considerable insight into the mental, emotional and social problems confronting the blind.

The Pattern of the Past—Can We Determine It? By PIETER GEYL, ARNOLD J. TOYNBEE and PITIRIM A. SOROKIN. 130 pages. Cloth. Beacon Press. Boston. 1949. Price $2.00.

The Pattern of the Past—Can We Determine It?, a study of Toynbee by Pieter Geyl and Pitirim Sorokin with a rejoinder by Professor Toynbee, is a book that merits serious attention because in a sense it attempts to survey, conceptually, history as a whole, to discover trends in its movement, and to seek out its meaning. In this book, Toynbee, the historian, answers his critics—in particular Professor Geyl of the University of Utrecht. It is a scholarly assault, and the rejoinders are lively. While Weyl doubts Toynbee's claim to discovering a pattern and a rhythm in human history, he does admit that Toynbee's work is based on a vast learning. Professor Sorokin also comments brilliantly on Toynbee's writings. In *The Pattern of the Past* may be found interesting views: among them, the striking formula of challenge and response, an application in effect from the science of psychology to history; arguments on historiography; views on the decline of civilization; ideas on the process of growth and disintegration of culture; and conclusions concerning the socio-cultural system of man's culture.

The Novel of Violence in America. By W. M. FROHOCK. 209 pages. Cloth. University Press in Dallas. 1950. Price $3.75.

Here is a friendly, well-meaning, and thoroughly naïve book by a literary critic who marvels at the fact that so many modern novels in America deal with the problem of violence. He distinguishes "two strains of sensibility"; "novels of erosion and novels of violence." In the erosion novel the author is concerned with the action of time upon his characters; in the novel of violence, "the significant factor is not what time does but what a man does in the time allowed him."

There should be no objection to subdividing novels after any principle one wishes, provided the subdivision clarifies the topic under discussion. The main reason for the complete unproductivity of Frohock's approach is his unfamiliarity with the newer psychiatric findings: For him, violence is just violence. The idea that murder could represent an unconscious defense, its connection with psychic masochism, etc., are unfamiliar precepts to the author.

More, Frohock avoids such knowledge: "Psychiatry is dangerous as a critical tool" (p. 184). So, dangerous, that he prefers to be naïve rather than be contaminated. Thus, many of the reasonable and intelligent statements about the books of Dos Passos, Wolfe, Farrell, Cain, Faulkner, Caldwell, Steinbeck, and Hemingway, become out of focus. This regrettable fact is based on two omissions: Frohock does not know what violence means in the unconscious; moreover, he has no inkling as to what makes a writer write in the first place. He might well be referred here to: Bergler's *The Writer and Psychoanalysis.*

Personality. A Systematic Theoretical and Factual Study. By RAYMOND B. CATTELL. 689 pages. Cloth. McGraw-Hill. New York. 1950. Price $5.50.

The author starts with a discussion of the most recent theoretical and factual discoveries concerning the measurement and description of personality, and progresses to discussion of heredity and environment. He makes a sociological and anthropological approach, supplemented by psychosomatic and physiological concepts, in an effort to place the understanding of personality on a more objective and exact basis.

Unfortunately, Cattell has tried to cover too wide a field at the expense of thoroughness. He admits that it has been necessary to condense the material and to "presuppose that the teacher will provide proper familiarity with the illustrations and facts which are often mentioned only by name in the discussion of the principles." Had he narrowed his field and given more detailed material in fewer areas, the text would have been more valuable in a non-academic setting.

Back. By HENRY GREEN. 247 pages. Cloth. Viking. New York. 1950. Price $3.00.

The protagonist of this novel is a wounded British veteran who returns to wartime England. The story revolves around his efforts to adjust to the changes in himself and his environment that have taken place during his absence, specifically the death of his mistress. In this reviewer's opinion, the plot is weakened by an overabundance of all-but-irrelevant incident. The characters are lacking in depth and their motivations are often left for the reader to guess at. More important, however, are a couple of fairly serious misconceptions which the book fosters. In one case, a woman suffers from complete amnesia and disorientation. This illness disappears overnight with very little after-effect when the patient becomes responsible for the care of her ailing husband. In the other case, the hero is made to suffer from an episode of what might be paranoid schizophrenia. The reader is left with the conclusion at the end of the book that the love of a good woman will straighten him out, and that all concerned will live happily ever after. In this reviewer's opinion, this sort of thing is unwarranted encouragement of the tendency of victims of maladjustment and their friends to wait and hope for a miracle when they should be seeking professional help.

He Lived in My Shoes. By LESLIE GREENER. 272 pages. Cloth. The Australian Publishing Co. Sydney. 1948. Price 10/6 net.

The author, a man of many adventures, wrote his half-memoirs while in a Japanese prison camp; he was intelligence officer of the ill-starred Eighth British Division captured at Singapore. The blurb promises something like psychology: "Each of us has a second self—the fellow we really believe we are—the smart one who always has an answer ready; the handsome one who could have got the girl; the courageous one who would have thrashed the bully." The text does not confirm the promise, and consists of sometimes sarcastic, sometimes complaining descriptions of the not-too-bright British educational system. The "second self" turns out to be some silly impersonation in war times. Occasionally, the author comes up with some amusing bits of information:

"Pleasure is only pain in sheep's clothing. Take pickled onions, or ghost stories, or the waterchute at Earl's Court. Take the delights of the table, with pangs of hunger before, and dyspepsia after; take the glow of benevolence, and the reproach of your cheque-book stubs. The uncertainty of love is more exquisite torture than any of these." (p. 137.)

In short, this is harmless, unpretentious reading for relaxation—but not more.

The Mystery of Keats. By JOHN MIDDLETON MURRY. 260 pages. Cloth. Peter Nevill. London and New York. 1949. Price 12/6 ($3.00).

This is a book for the person who has read Keats, has read about Keats, and is making a serious effort to comprehend all the ramifications of Keats. It is not a book for the casual reader who wishes to get a broad, easily understandable picture. An assumption is made that the reader has all the salient facts of Keats' life at his commond, and has read Mr. Murry's earlier standard work, *Keats and Shakespeare*. In *Keats and Shakespeare* Mr. Murry made a mistake. He severely condemned the person most influential in the development of Keats' later life and poety, Fanny Brawne; a condemnation that later-discovered evidence has proven to have been unjustified. *The Mystery of Keats* opens with a re-evaluation of Fanny Brawne and a defense of the author's previous interpretation of Keats' work. The central portion of the book is taken up with a study of the poet's concepts of the inter-relationship between Love, Truth, and Beauty, while the last few chapters deal with the contribution to Keats' work of Milton, Wordsworth, and Blake.

The actual analysis done by Mr. Murry is good, if perhaps difficult to follow at times. He has correlated information gleaned from Keats' actions and letters to his friends with the verse written at the same time, and has shown the tie-in of mood, actions, and poetry. The theory behind the criticism is: "The composition of a *great* poem is but a final conscious act supervening upon a long process of unconscious elaboration." Strong evidence in support of this theory is presented by Mr. Murry. The writing style throughout has a tendency to be emotional and overly dramatic. Its saving grace, however, is that it fits its subject; Keats was a dramatic, sensual person, a person who expressed his life through his poetry.

The Challenge of Delinquency. Causation, Treatment and Prevention of Juvenile Delinquency. By NEGLEY K. TEETERS and JOHN OTTO REINEMANN. 738 pages. Cloth. Prentice-Hall. New York. 1950. Price $5.50.

In their preface, Drs. Teeters and Reinemann state that this book was planned primarily but not exclusively for university students, but that they have attempted to make a broad review of the delinquency problem.

In Part I, "Scope of the Problem of Delinquency," the authors point out that the treatment and prevention of delinquency requires the co-operation of every citizen as well as of numerous organizations, since the delinquent youth of today may become the adult criminal of tomorrow. They admit that it is not possible to state whether delinquency is increasing. The authors describe in detail the long history of past methods of caring for the delinquent, the numerous projects conducted to ferret out the pos-

sible causes of delinquency, i. e., biological, racial, socio-economic and cultural.

In Part II, "Control and Treatment of Juvenile Delinquency," one learns of the methods of apprehension, detention, investigation, commitment and probation which have been used and of the better types of each. One also learns of the philosophy and history of juvenile courts.

Part III, "Community Responsibility," describes community projects as well as governmental and state projects, which have been used in an attempt to divert the energy of youth into constructive channels.

The book has an appendix containing 15 well-written, brief but representative, case histories. It contains, also, a fine bibliography, a name index and a subject index.

In substance, this book presents to the reader a very good history of the projects which have been instituted to study delinquency. It emphasizes the point that treatment and prevention is a job resting upon the shoulders of every citizen. However, your reviewer regrets to state that it fails to give one any definite answers to the problems presented. Perhaps this is impossible.

Selected Writings. By PAUL VALÉRY. 256 pages. Cloth. New Directions. New York. 1950. Price $3.50.

Fantastic, sentimental, modern, irregular and virile excerpts, ideas and fragments of Paul Valéry's creativity are to be found in his *Selected Writings*. The book includes poems, much verse, essays, and general prose. The themes involve a broad scope and great divergency: on society, justness, culture and order, motherhood, art, philosophy, the concept of method, literature, mythology, painting, metaphysical deliberations. The contents of this book give evidence of the depth of Valéry's thinking, and in flashes it is obvious that the French poet-philosopher is a stylist and rather fine critic. Some of his thoughts are unique, but not very influential or profound, either psychologically or literarily.

How Our Minds Work. By C. E. M. JOAD. 116 pages. Cloth. Philosophical Library. New York. 1950. Price $2.75.

In this short book the author points out the importance of the relationship, as he conceives it, between the body and the mind. The general theme is that body and mind influence each other at every moment during waking life. He gives a brief discussion of the nervous system and expounds the theory of emotions of James and Lange.

The book is divided in five parts: the mind-body problem, the mind as an aspect of a body, the mind as distinct from the body, the mind as an activity, and the theory of the unconscious.

This discussion should be of value to student, teacher and layman who seek clear and satisfactory answers to the many problems of the mind.

Courtship and Marriage. By FRANCIS E. MERRILL. 332 pages. Cloth. Sloane Associates, Publishers. New York. 1949. Price $3.75.

When a sociologist (the author of *Courtship and Marriage* is professor of sociology at Dartmouth) ventures into psychiatric fields, the proverbial chances are that psychiatrists will claim that he is a good sociologist; and sociologists, in their turn, will guess that he is a good psychiatrist. Expressed less politely: This book is a series of misunderstandings.

The main thesis is the banality that romantic love and sex are not identical. Having stated the point with great irony, the author proceeds to prove that romantic love is a *taught* phenomenon. The author's overstressing of social phenomena results in eclectic quotations, dispensing with his duty to disprove a psychiatric theory stressing the psychological basis of romantic love (Jekels-Bergler theory). Other chapters are on the same level of misunderstandings: e. g., The chapter on divorce has this to say about the psychological situation of divorced people:

"The participants may each convince themselves on a conscious level that the fault lay with the other; there is also the unconscious realization that partial accountability rests with the self. Finally, in addition to these feelings of guilt there is a *melange of other emotional maladjustments,* including 'suppressions, repressions, regressions, ambivalent motivations, blockages, cleavage between lust and love, loss of self-confidence and ambition, doubts, indecision, nightmares, morbidly transferred attachments or aversions. . . .'" Melange, indeed, from quotations (this time the authorities are Becker, Reuben, Eliot) and generalities.

In general, this book lends itself to one conclusion: Each science should remain in its own limits. Only a co-operation of specialists in different fields is feasible; had the author-sociologist looked for a psychiatrist as collaborator, many of the misunderstandings expressed here could have been avoided.

Women in Marital Conflict. By FLORENCE HOLLIS. 223 pages. Cloth. Family Service Association. New York. 1949. Price $3.50.

An enlarged Ph.D. dissertation, this casework study by the author, at present associate professor of social work at the New York School of Social Work at Columbia, gives an intelligent and sympathetic over-all picture of casework. It also includes a study of 100 families.

The author seems to be well informed on psychiatric-psychoanalytic topics; and although one could argue many points (misunderstandings concerning the structure of the inner conscience which is described as the exclusive result of parental teaching and preaching; misunderstandings concerning the "need to suffer," where moral masochism is confused with inner guilt, etc), the general impression is favorable.

Stranger in the Land. By WARD THOMAS. 373 pages. Cloth. Houghton-Mifflin. Boston. 1949. Price $3.50.

Here is a good novelistic description of a small-town homosexual, embroiled with a small-town, psychopathic, bisexual blackmailer. The picture of the homosexual victim is unusual, because the hero is full of self-depreciation and external guilt concerning his perversion; the blackmailer conforms to the usual standards. The author tries to evoke pity for the vicissitudes of homosexuals; but his description is marred by the pitiful inadequacy of his unconscious insight, and his intellectual knowledge, of the genesis of homosexuality. Numerous fallacies are invoked, from hints of Oedipal conflicts, to feminine identification, to biology, to "subtle variations of the reproductive instinct" (p. 191), to banalities such as, "It's purely a matter of preferring Apollo to Venus [p. 193]."

Not less psychologically faulty is the motivation of the final murder of the blackmailer, culminating in the dictum, "Conscience was an instilled habit, remorse was an atavistic reflex [p. 309]."

The ideas that the murderer unconsciously bargained for the electric chair, that the hero's association with, and attraction to, the blackmailer was masochistic from the start, finally that homosexuality is a curable disease, are quite foreign to the author. His inept playing around with misunderstood psychiatric terms (e. g., "And perhaps he was exaggerating the risk, out of a masochistic compulsion to punish himself for the pleasures he took with the boy"—p. 66—whereas the psychic masochism was the *primum movens*), detracts from the otherwise good description of a homosexual "injustice collector."

Consider the Lilies of the Field. By ERICO VERISSIMO. Translated from the Portuguese by Jean Neel Karnoff. 371 pages. Cloth. Macmillan. New York. 1947. Price $3.00.

Here is a melancholy and depressing story of a young Brazilian physician, born on the wrong side of the tracks, who sacrifices the girl he loves and his family to the propelling wish to escape poverty. He marries the daughter of a millionaire; is unhappy in marriage, without even enjoying the pleasures of luxury. The girl he loved dies after an operation; this produces a change in the hero; he divorces his wife, renounces luxury, and posthumously accepts many of the beloved's precepts, e. g., social consciousness.

Thus, the problem seems to hinge on guilt, connected with his aggressive behavior toward the girl, who bore him a child without his knowledge. Beneath this conflict, is a deeper one, that of a complete psychic masochist, incapable of enjoying anything but his misery—self-created misery, to boot. The book is written in a gloomy tone of hopelessness which counteracts the Brazilian author's intentions.

The Seeker and the Sought. By MARIE BAUMER. 217 pages. Cloth. Scribner's. New York. 1949. Price $2.75.

The author presents a dramatization of a seemingly unmotivated case of inner guilt. Middle-aged Walter Williams, one night opened the door of his apartment to a persistent knocking, to be confronted with a weeping adolescent begging for help in an unclarified danger. Not wanting to get involved, Williams shut the door. Then "conscience grew on him" (to quote the blurb), and he became obsessed with finding, helping, rescuing the unknown boy. He became involved with underworld characters in his rescue-attempt, lost his job, was nearly murdered—in short, a good suspense story is developed.

The book has, however, literary aspirations. It revolves around the familiar phenomenon of the unconscious "magic gesture." The term, probably not known to the author, denotes a five-step technique. (1) A psychic masochist (unconscious) whimpers his accusations against infantile images of his nursery past. (2) He is reproached by his unconscious conscience; and is (3) forced to establish a defense mechanism of pseudo-aggression, "I hate them." (4) This, too, is rejected by the inner conscience, with the final result (5) that a secondary defense is instituted: "I'm not masochistic, or aggressive; I just want to show how I would have liked to be treated—kindly and lovingly." This last constitutes the "magic gesture." Thus, the prerequisite for a "magic gesture" is choice of a beneficiary as remote as possible: the greater the discrepancy between beneficiary and benefactor, the greater the accusation against the enshrined parental image, "You were bad to your own child; I, however, care for a stranger."

Miss Baumer's hero shows the "magic gesture" clearly—Williams' actions are logically absurd. Different rationalizations are frantically adduced: from "simple friendly gesture," to "guilt," to "obsession," to "common humanity." Williams even produces parts of the repressed third step (pseudo-aggression): He is instrumental in capturing the boy. "Yes, he was the ringleader," he said to the policeman. "You'd better question him. He told me he killed another boy [p. 200]." Later, though, he tries once more to help the boy at the trial, once more reversing his inner position by approving of the sentence—three years in reform school.

The blurb asserts that the story "takes the reader in its grasp and makes him a breathless participant." This is, strangely enough, not at all the case. Hence, the question arises: What prevents reader-identification? The answer seems to be in the two-dimensional quality of the characterization. The lack of three-dimensionality is based on the choice of the topic, on absence of any logical motive in Williams' actions, and on the inability of the author to bridge the gap between the general motivation ("conscience makes him do it") and the specificity of described sense-

less actions. Rather naïvely, the author approaches the fantastically-difficult problem of "explaining" magic gestures.

A brief look at a similar situation, described in Dostoiewski's *Crime and Punishment,* shows the great caution in motivations held necessary by the psychological novelist genius. After having received a letter from his mother, informing him of the sacrifice of his sister in consenting to marry an unloved man (to support the brother), Raskolnikow performs a magic gesture in the park with a drunken girl whom a wealthy man pursues. He even offers money (though he starves) to take the girl home in a vehicle, money deposited with a policeman. The reader is made to understand that Raskolnikow identifies the girl with the sister: The letter from his mother also informed him that the sister had been sexually pursued by her employer, Swidrigailow, in whose house she worked as governess. During the scene in the park, Raskolnikow calls the unknown man, pursuing the unknown girl, "Swidrigailow!" Moreover, Dostoiewski is cautious enough to explain even the policeman's interest in the girl, by reproducing Raskolnikow's thought that he, too, "perhaps had daughters" of the girl's age. Finally, Dostoiewski also reproduces the "senseless" shift from magnanimity to aggression in the framework of the magic gesture: Without any reason, Raskolnikow gets angry and turns against the poor girl.

All this shows how circumspectly, and with what careful handling, the problem of "magic gestures" must be approached. Miss Baumer had a brilliant idea; she was handicaped in working it through. Psychological motivations must be established in a novel; it is not enough to say simply that "conscience did it."

Experiments in Social Process. James Grier Miller, editor. 205 pages. Cloth. McGraw-Hill. New York. 1950. Price $3.00.

This book is a symposium of representative samples of the most recent work in the field of social psychology, as reported and discussed by a group of social psychologists at the University of Chicago. The articles aim to present a new approach to social psychology, with particular emphasis on various techniques applied to current pressing international problems.

Nine topics are discussed: "Scientific Methodology in Human Relations" by Donald G. Marquis; "The Strategy of Sociopsychological Research" by Ronald Lippitt; "Survey Research" by Dorwin Cartwright; "Survey Techniques in the Evaluation of Morale" by Daniel Katz; "Changing Group Productivity" by John R. P. French, Jr.; "A Comparative Study of National Characteristics" by Donald V. McGranahan and Ivor Wayne; "The Implications of Learning Theory for Social Psychology" by James J. Gibson; and "Social Psychology and the Atomic Bomb," a round-table discussion by members of the symposium and Leo Szilard.

The book is experimental in approach, is most stimulating and is applicable to contemporary issues.

CONTRIBUTORS TO THIS ISSUE

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During World War II, Dr. Bewkes was one of the three directors of the War Manpower Commission, a member of the National Manpower Planning Board and a member of the President's Committee of Three to determine selective service policy for government employees. Dr. Bewkes holds a number of educational posts, in addition to heading St. Lawrence University; he is the author of books and articles on philosophy, religion and education, and holds a number of honorary degrees.

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Dr. Devereux did field work among the Hopi, Mohave, Yuma and Cocopa Indians, the Karuama pygmies and the Roro of Papua, New Guinea, and the Moi of French Indochina, and worked in a clinical setting with psychiatric patients belonging to various Indian tribles. He has published about 70 papers, a book *Reality and Dream: The Psychotherapy of a Plains Indian*, and is co-author with Karl A. Menninger of the bibliographical study, *A Guide to Psychiatric Books*.

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vising psychiatrist. He is also psychiatrist in charge of the child guidance clinics of Rockland County. He is a member of the American Psychiatric Association and other professional bodies, and is the author of a number of scientific articles on schizophrenia and behavior disorders in children.

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NEWS AND COMMENT

PAPER AGAIN IN SHORT SUPPLY

A serious paper shortage has been developing over recent months. It is reflected to a slight extent in this issue of THE PSYCHIATRIC QUARTERLY and will be reflected to a much greater extent in succeeding issues. The number of pages devoted to scientific articles will necessarily be materially reduced; the book review section will have less space, and book reviews will generally be shorter.

A serious time lag originating during the war, and not eliminated since, has existed between acceptance of articles for publication and their actual appearance. While every endeavor will be made to see that the time lapse does not increase, the paper shortage makes any present reduction out of the question.

The editors regret this situation and aim to correct it as soon as conditions permit.

PRIVATE SANATORIA LISTING SOUGHT

Dr. Henri Ey, 1, Rue Cabanis, Paris XIV, secretary of the First World Congress of Psychiatry in Paris in 1950, is appealing for registrations of private mental hospitals and sanatoria throughout the world, to be sent to him for inclusion in the published proceedings of the congress. The congress hopes for as complete a list as possible, and, because of the expense of publication, is requesting a registration fee of $5 for each listing, or 1,500 French francs, payable to the treasurer of the Congress, Dr. P. Sivadon, Ville-Evrard, Neuilly-sur-Marne, Seine et Oise, France.

SPECIAL GENERAL SEMANTICS CONFERENCE ANNOUNCED

A conference on general semantics at the same time as the first membership meeting of the International Society for General Semantics will be conducted at the University of Chicago, Friday and Saturday, June 22 and 23, 1951, it is announced by Russell Meyers, M. D., president of the international society. Except for official addresses, papers will be submitted anonymously—with the author's name in a blank, sealed envelope, attached to the first sheet—to be chosen for presentation or publication prior to knowledge of authorship.

MORENO INSTITUTE HAS PROVISIONAL CHARTER

THE QUARTERLY has been requested to report the announcement that the Moreno Institute (formerly the Sociometric Institute) of New York City and Beacon, N. Y., has received a provisional charter from the Board of Regents of New York State. It specializes in the training of group psychotherapists, psychodramatists and sociometrists. Workshops sponsored by the Moreno and Psychodramatic Institutes will be conducted in Beacon this summer, May 26-May 30, June 30-July 4 and September 1-September 3. The subject will be "Training in Human Relations."

THREE NEW PUBLICATIONS ANNOUNCED

Three new publications of interest to psychiatrists have been announced. *Neurology*, a bi-monthly, the official publication of the American Academy of Neurology, published its first issue in January 1951. Russell N. De Jong, M. D., is editor-in-chief, Webb Haymaker, M. D., associate editor; and there is an editorial board of 10 members. Grune & Stratton, medical and scientific publishers of New York City, brought out the first issue of a new quarterly, *Personality, Symposia on Topical Issues*, in February. Dr. Werner Wolff is editor. The topic of the January issue is "Frustration"; those of April, July and October are "Personality Formations," "Hypnosis and Personality" and "Hypnotherapy." The first number of another new quarterly, *Psychological Book Previews*, also appeared in January. The editor is John W. French of the Educational Testing Service. The journal is expected to average about 160 pages an issue, including about 45 previews of forthcoming books written by their authors and a bibliography of 450 to 500 critical book reviews. It will cover books in the fields of psychology, anthropology, education, neurology, psychiatry, sociology, social work and statistics.

YALE SUMMER SCHOOL OF ALCOHOL STUDIES

Yale University has announced dates for the ninth annual session of its summer school of alcohol studies as from July 7 through August 3. Selden D. Bacon, associate professor of sociology and director of Yale's Section on Alcohol Studies, is director of the summer school.

TESTIMONIAL COMMITTEE FOR DR. GAULT

W. G. Eliasberg, M. D., on behalf of the committee on arrangements, has asked THE QUARTERLY to call attention to the formation of "The Doctor Robert H. Gault Testimonial Committee" to honor Dr. Gault on completion of 40 years of editorship of the *Journal of Criminal Law and Criminology*. Psychiatrists, psychologists and others interested are asked to communicate with Dr. Eliasberg at 420 West End Avenue, New York 24, N. Y.

THE AMERICAN JOURNAL OF MENTAL DEFICIENCY

RICHARD H. HUNGERFORD, *Editor*

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TABLE OF CONTENTS

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PSYCHIATRIC QUARTERLY

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CONTENTS